



## BOARD OF DIRECTORS' MEETING

June 16, 2022

9:00 A.M.

### AGENDA

*This meeting is being held pursuant to and in compliance with the Albemarle County Emergency Ordinance No. 20-E (2); An Emergency Ordinance to Ensure Continuity of Government during the Covid-19 Disaster. The ACSA Board of Directors is responsible for receiving public comment. The opportunities for the public to access and participate in the electronic meeting are as follows: Join the meeting virtually through Zoom by visiting our website at [www.serviceauthority.org](http://www.serviceauthority.org); call in and leave a message prior to the meeting at (434) 977-4511, or email the Board prior to the meeting at [board@serviceauthority.org](mailto:board@serviceauthority.org).*

9:00 a.m.	<b>1.</b> Call to Order and Establish a Quorum –Statement of the Board Chair
9:05 a.m.	<b>2.</b> Approve Minutes of May 19, 2022
9:10 a.m.	<b>3.</b> Matters from the Public
9:20 a.m.	<b>4.</b> Response to Public Comment
9:25 a.m.	<b>5.</b> Consent Agenda
	a. Monthly Financial Reports
	b. Monthly Capital Improvement Program (CIP) Report
	c. Rivanna Water and Sewer Authority (RWSA) Monthly Update
	d. ACSA Board Policy Future Issues Agenda 2022
	e. Advanced Metering Infrastructure (AMI) Project Update
	f. Ratification of Agreement with Metra Industries
	g. Water/Wastewater Professionals Appreciation Day – Resolution
9:45 a.m.	<b>6.</b> Public Hearing for Comments on Proposed FY 2023 Budget, Rates and Capital Improvement Program (CIP)
10:15 a.m.	<b>7.</b> Adoption of Proposed FY 2023 Budget, Rates, CIP and Amendments to the ACSA Rules and Regulations – Budget Rate Schedule and Amendments
10:20 a.m.	<b>8.</b> Amendments to Personnel Management Plan (PMP) – Pay Schedule Changes
10:35 a.m.	<b>9.</b> Water Quality Update – CCRs
10:55 a.m.	<b>10.</b> Upper Morey Creek Sewer Line Transfer from RWSA
11:20 a.m.	<b>11.</b> Items Not on the Agenda
11:30 a.m.	<b>12.</b> Executive Session – Executive Director Annual Review
	<b>13.</b> Adjourn



**ALBEMARLE COUNTY SERVICE AUTHORITY**

**STATEMENT OF CHAIR TO OPEN JUNE 16, 2022 MEETING**

This meeting today is being held pursuant to and in compliance with the Albemarle County Ordinance No. 20-A (16); an Ordinance to Ensure the Continuity of Government During the COVID-19 Disaster.

The Directors who are electronically present at this meeting are.... **(Name the directors electronically present for the meeting)**

The opportunities for the public to access and participate in the electronic meeting are posted on the ACSA's website. Participation will include the opportunity to comment on those matters for which comments from the public will be received.



1           The Board of Directors of the Albemarle County Service Authority  
2 (ACSA) met virtually in a regular session on May 19, 2022, at 9:00 a.m.  
3 through Zoom. Mr. Roberts joined the virtual meeting at the Administration  
4 and Operations Center at 168 Spotnap Road in Charlottesville, Virginia.

5 **Members Present:** Mr. Richard Armstrong; Mr. Nathan Moore; Dr. Lizbeth  
6 Palmer; Mr. John Parcels; Mr. Clarence Roberts, Chair; Mr. Charles  
7 Tolbert, Vice-Chair.

8 **Members Absent:** None.

9 **Staff Present:** Jim Bowling, Daniel Fouch, Pete Gorham, Quin Lunsford,  
10 Jeremy Lynn, Michael Lynn, Alex Morrison, Gary O'Connell, Terri Knight,  
11 Emily Roach, Danielle Trent, April Walker, Elizabeth Wallace, Deanna  
12 Davenport.

13 **Public Present:** Michael Frank, Frank & Associates; William Benner,  
14 Frank & Associates; Darren Frank, Frank & Associates; Neil Williamson,  
15 Free Enterprise Forum; Alison Wrabel, The Daily Progress.

16  
17 1. Call to Order and Establish a Quorum – Statement of Board Chair

18           The Chair called the meeting to order, and a quorum was  
19 established. He then read the Board Chair statement declaring an  
20 electronic meeting (Attached as Page \_\_\_\_\_).

21  
22 2. Approve Minutes of April 21, 2022

23           There were no corrections to the minutes of April 21, 2022.

24 ***Mr. Tolbert moved to approve the minutes, seconded by Dr.***  
25 ***Palmer. All members voted aye.***

26  
27 3. Matters from the Public

28           There were no matters from the public.

29  
30 4. Response to Public Comment

31           There was no response to public comment.

Albemarle County Service Authority Board of Directors5. Consent Agenda

**a. *Monthly Financial Reports*** – Mr. Parcels stated that there are 49 individual payments in the check registry, ranging from \$1 to \$657 and he was curious as to why there were so many and what they meant. Mr. Lunsford replied that the volume of checks in any given month can vary, depending upon business that is transacted. He stated that what Mr. Parcels is seeing in this check register is consistent with reimbursements made to customers during the move-in/move-out process. He mentioned that the volume increases during the late spring/ early summer and again in the fall.

Mr. Tolbert stated that he would like someone to speak to the Hessian Hills project repaving, what the issues are, and when some action is likely to be seen. Jeremy Lynn replied that the ACSA is in the process of wrapping up its utility efforts, with some water main work completed this week. He stated that flowable fill has been installed in the existing pipes along Georgetown and Barracks Road. He stated that, according to Metra, repaving efforts are to begin in early June, although the ACSA has not seen a schedule from S.L. Williamson confirming as much.

Mr. Tolbert asked if the repaving and hiring of the contractor to do the repaving were part of the Metra contract. Mr. Lynn replied yes. He stated that part of the scope included in Metra's contract is to repave the one lane along Barracks Road, and the full roadway along Georgetown Road. Mr. Tolbert asked if Metra is only responsible for paving one lane along Barracks Road, who would pave the rest of it. Mr. Lynn replied that VDOT has a state contract, and their schedule is early August in terms of repaving the remaining portion of Barracks Road. Mr. Tolbert asks what will happen as the cuts along Barracks Road deteriorate over the next few months. Mr. Lynn replied that the cuts along Barracks Road will be cold patched at this point. He stated that as part of Metra's contract, they will excavate that cold patch and

1 bring a base pavement product up to the existing surface. He noted  
2 that this will be temporary and should last until VDOT's contractor does  
3 a full mill and overlay of those lanes with a surface topping later this  
4 summer.

5 **b. Monthly CIP Report** – Mr. Parcels stated that he is happy to see  
6 good progress being made with the Four-Story Backflow Prevention  
7 project. He asked, with regards to the UVA Foundation lease, how  
8 much more the new appraisal was and what it will do to the budget for  
9 that project. Mr. Gorham replied that the value of the easement, based  
10 on the appraisal report, was a lot closer to what the ACSA's previous  
11 offer was, and further away from the UVA Foundation's counteroffer.  
12 He stated the Foundation has the report in hand and a final offer from  
13 the ACSA based on that report. He stated that the ACSA is waiting to  
14 hear back from them. He added that there should not be much effect  
15 on the overall project budget, but it is difficult to say with any certainty.

16 Mr. Parcels stated that negotiations with the UVA Foundation have  
17 been challenging and asked how likely is it that they will accept the  
18 final offer. Mr. Gorham stated that the ACSA obtained a third-party  
19 appraisal at the Foundation's request. He mentioned that the  
20 Foundation provided a caveat to the request, stating that they would  
21 not necessarily agree with what came out of the appraisal. Jeremy  
22 Lynn added that he and Mr. Bowling have been working with closely  
23 with the Foundation's legal counsel all week and have almost come to  
24 terms with the deed of easement language. He stated that there has  
25 been no recent communication concerning the monetary offer, and he  
26 is optimistic that they will be able to reach an agreement.

27 **c. CIP Authorizations** – Mr. Parcels stated that he was puzzled  
28 regarding the Madison Office Park Pump Station project. He stated that  
29 there was a remark in the discussion about the project costing  
30 \$400,000 more than initially anticipated, but the differential between  
31 ACSA's estimate and the contractor's bid is only \$292,000. Mr.

1 Gorham replied that the \$400,000 is based on the initial construction  
2 estimate that was part of the rate model. He mentioned that the  
3 difference noted in the recommendation letter was between the  
4 contractor's bid and the engineer's final design estimate for  
5 construction.

6 **d. Monthly Maintenance Update** – Mr. Parcels stated that he feels this  
7 preemptive review is a fabulous idea and the examples given are  
8 great. He stated that he commends whoever came up with the idea,  
9 and the group that is taking care of this.

10 **e. Rivanna Water and Sewer Authority (RWSA) Update** – Mr. Parcels  
11 asked if the transfer of ownership of the Morey Creek Interceptor from  
12 RWSA to ACSA involved any money. Mr. Gorham replied no. Mr.  
13 Parcels asked if there will be a new sewer line set up for those  
14 customers that are further away but want to connect to sewer. Mr. Lynn  
15 replied that transferring the upper portion of the Morey Creek  
16 Interceptor to the ACASA allows the properties adjacent to that sewer  
17 line to connect to the sewer more easily. He noted that the ACSA will  
18 still need to extend public utilities off that trunk sewer, into the  
19 community to serve parcels that are not adjacent to it. Mr. Parcels  
20 asked if this meant obtaining easements from various property owners.  
21 Mr. Lynn replied yes. He stated that part of the Bellair-Liberty Hills  
22 Sewer project will require sewer extensions and associated easements  
23 across some of those parcels.

24 **f. ACSA Board Policy Future Issues Agenda 2022 –**

25 **g. Advanced Metering Infrastructure (AMI) Project Update –**

26 **h. National Drinking Water Week – Resolution** – Mr. Parcels asked  
27 why the ACSA is approving the resolution now, when National Drinking  
28 Water Week was a week ago. Mr. O'Connell stated that this item is a  
29 little late, but the staff felt it was important to continue the tradition of  
30 recognizing the importance of water and water professionals that  
31 provide that safe, clean water to our customers, as we do each May.



1           **Mr. Parcells moved to approve the Consent Agenda,**  
2           **seconded by Nathan Moore. All members voted aye.**  
3

4           6.     Proposed FY 2023 Budget and Rates – Workshop

5           Mr. O'Connell stated that this item is part of the staff's continuing  
6           efforts to bring the Board up to speed about the budget proposal. He stated  
7           that also this month, there will be a newsletter going out to all customers  
8           and made available on the website. He stated that this presentation follows  
9           the initial presentation in April on the budget and rates. He mentioned that  
10          the staff has gone over the proposed FY 2023 CIP budget in detail with the  
11          Board, and today's workshop is meant to dive deeper into the budget. He  
12          added that Quin Lunsford, Director of Finance, would be giving the Power  
13          Point presentation (Attached as Pages\_\_\_\_\_).

14          Mr. Lunsford stated that he was appreciative of the opportunity to  
15          discuss the budget with the Board today. He noted that there would be a  
16          follow-up discussion at next month's meeting to address any questions or  
17          concerns that may come out of today's presentation. He stated that the  
18          agenda for today's presentation would begin with a brief overview of the  
19          ACSA, followed by an update on FY 2022 and an analysis of the water and  
20          sewer rate. He stated that he would also go over some of the budget  
21          highlights for FY 2023 and various departmental initiatives, speak briefly on  
22          the CIP program and finally, go over next steps.

23          Mr. Lunsford stated that the ACSA's vision and mission statement  
24          can be boiled down to clean, safe, and reliable. He stated that the ACSA  
25          serves nearly 82,000 customers, with almost 22,000 individual accounts.  
26          He mentioned that the service area continues to see development in the  
27          Urban and Crozet communities, and there are no signs of that growth  
28          slowing down.

29          Mr. Lunsford stated that in terms of the 2022 fiscal year, it was  
30          positive. He stated that when the FY 2022 budget was prepared around the  
31          same time last year, there was considerable uncertainty as to how much

1 consumption the ACSA would see from its customers. He mentioned that  
2 despite this, water and sewer revenues are currently exceeding budgeted  
3 expectations by almost \$900,000 and \$1 million, respectively. He stated  
4 that this revenue has been largely driven by very high levels of  
5 consumption in August, September, and October of 2021. He mentioned  
6 that operating expenses for water and sewer were currently below  
7 budgeted expectations, as well as departmental expenses.

8 Mr. Lunsford stated that regarding projections for the remainder of  
9 the fiscal year, water revenues are expected to be 6% over budgeted  
10 amounts, and sewer revenues are expected to be 9% over the budgeted  
11 expectations. He mentioned that in FY 2022, the ACSA budgeted  
12 approximately \$5.2 million of reserve funds to offset expected increases in  
13 costs, but collections over budgeted revenue expectations have made it  
14 unnecessary to tap into all those reserve funds.

15 Mr. Lunsford stated that ACSA staff and NewGen, the water and  
16 sewer rate consultant, have presented several times already this year. He  
17 stated that he did want to touch on a few key items to further explain how  
18 the proposed budget was developed, and the rates associated with that.  
19 He stated that the ACSA's most significant cost is related to the purchase  
20 of treated water and wastewater treatment from RWSA. He noted that one  
21 important component is the expected average increases in those costs  
22 each year for the next five years, at 8% for water and 7% for sewer.

23 Mr. Lunsford stated that there were several recommendations that  
24 came out of the rate study. He stated that the first is an increase to the  
25 single-family customer rates of about 4.6% for FY 2023. He noted that this  
26 increase is a composite of both the water and sewer charge. He stated  
27 that, to date, there has been one customer inquiry regarding the increase.  
28 He mentioned that this increase comes after a 5% increase in FY 2022 and  
29 no increase in FY 2021, as the pandemic was just starting. He stated that  
30 the system development/capacity charges are currently sufficient to offset  
31 the capacity that the new connections are using and thus, no change was

1 recommended. He mentioned that the rate study consultant did  
2 recommend adjusting the service charges to better align with the meter  
3 size equivalents referenced in the AWWA manual. He stated that it was  
4 also recommended that the ACSA adjust the multi-family/non-residential  
5 rate to equal tier 2 of the single-family rate. He added that the use of  
6 reserves to smooth customer rate increases over time was recommended  
7 as well.

8 Mr. Roberts asked if adjusting the multi-family/non-residential rate  
9 to equal tier 2 of the single-family rate would eliminate tier 1. Mr. Lunsford  
10 replied no. He stated that the multi-family/non-residential customers do not  
11 have a tiered rate structure but rather are charged a flat rate. He stated that  
12 the change would align that rate with the tier 2 single-family rate.

13 Mr. Lunsford stated that the illustration on the next slide shows the  
14 ACSA's increase to customers, in comparison to the increases that the  
15 ACSA is seeing in charges from RWSA for delivered water and wastewater  
16 treatment. He stated that given RWSA charges do not make up the entire  
17 budget, the ACSA does not have to exactly mirror those increases year  
18 over year. He noted, however, that it is critical to maintain a level of  
19 increase that is appropriate compared to the costs that are being passed  
20 along to the ACSA. He mentioned that the Board has asked the staff over  
21 the last number of years to keep charges to customers as steady as  
22 possible, rather than fluctuating greatly from year to year. He added that he  
23 believes this illustration shows that effort to a degree.

24 Mr. Lunsford stated that strictly looking at revenue and the use of  
25 reserves, approximately 75% of all the revenue collected is associated with  
26 water and sewer charges to customers. He stated that system connection  
27 charges make up about 13%, and the rest will be made up in about \$5.2  
28 million of reserves. He stated that if there is strong consumption in FY  
29 2023, as there was in FY 2022, the use of reserves will not need to be that  
30 high. He stated that if consumption were to decrease, the ACSA may need  
31 to use all of that \$5.2 million, or more.

1           Mr. Lunsford moved to the next slide, which illustrated the various  
2 budgeted expenses and capital costs in totality. He stated that this does a  
3 great job of showing how much of the ACSA's budget is related to charges  
4 from RWSA, as well as how big and important the ACSA's CIP program is.  
5 He noted that the \$24.5 million referenced for the purchase of water and  
6 wastewater treatment includes both the operating charges from RWSA, as  
7 well as the growth/non-growth related debt service charges from RWSA.  
8 He mentioned that \$19.4 million of that \$24.5 million is related to non-  
9 growth debt service and operating charges, and the remaining \$5 million is  
10 related to growth-related debt service charges from RWSA.

11           Mr. Lunsford stated that the illustration on the next slide looks at  
12 historical costs of water and wastewater treatment through the end of FY  
13 2021, projected costs for FY 2022, and estimates expected charges  
14 through FY 2027. He mentioned that the ACSA expects to see about a 7-  
15 8% increase, year over year, in water and sewer charges. He noted that  
16 the most important takeaway from this slide, in his perspective, is the  
17 ACSA is expecting about \$25 million in charges from RWSA in FY 2023.  
18 He stated that by FY 2027, the costs approach nearly \$35 million. He  
19 added that it is important that each year, the ACSA updates the rate study  
20 and ensure that the increases are gradual.

21           Mr. Lunsford stated that as part of the budget process, the ACSA is  
22 required to publicly advertise any rate changes being proposed to the  
23 Board. He stated that the table on the next slide is what most customers  
24 see in their interactions with the ACSA. He stated that the service charge  
25 listed is for a normal single-family customer, as well as the tiered rates for  
26 single-family, the multi-family/non-residential rate, and the sewer rate. He  
27 noted that the volumetric charges are per 1,000 gallons. He added that  
28 normal single-family user is expected to see about a 4% increase in their  
29 monthly bill, which equates to about \$2.60 per month. He stated that it is  
30 not an insignificant amount in terms of percentage but hopes that it will not  
31 be terribly impactful.



1           Mr. Lunsford stated that the ACSA took a holistic view of its  
2 charges when conducting the rate study, including those charges for non-  
3 regular service such as temporary water service at a construction site. He  
4 stated that based on this analysis, it was determined that the ACSA was  
5 not recouping the cost of administering various services and adjustments  
6 needed to be made.

7           Mr. Lunsford stated that the rates are driven, in large part, by  
8 expected increases from RWSA. He stated that the ACSA expects to pay  
9 about \$1.32 million more for water compared to the previous fiscal year,  
10 and a little over \$1 million more for sewer. He mentioned that the operating  
11 budget is also expected to increase. He stated that it is driven largely by  
12 expected increases in materials and supplies, but also by personnel costs  
13 to compete in the marketplace.

14           Mr. Lunsford stated that the next slide, which shows the use of  
15 reserves and projections, needed to be corrected. He stated that the  
16 second bullet point states that the proposed budget includes \$3.8 million  
17 from the growth reserves to fund ACSA growth-related CIP projects. He  
18 noted that it should read \$2.4 million. He stated that the ACSA is using  
19 \$3.8 million in total from its growth-related reserves, but \$1.4 of that million  
20 is being used to fund growth-related RWSA CIP projects. He stated that  
21 \$1.5 million is also being used from rate stabilization reserves to fund non-  
22 growth-related ACSA CIP projects. He added that the strategic use of  
23 these reserves helps to lessen the rate increases, as the community  
24 continues to recover from the pandemic and day-to-day consumption  
25 returns to a normal level.

26           Mr. Lunsford moved to the next slide, which showed the projected  
27 \$2.60 per month increase in an average single-family customer bill for FY  
28 2023. He stated that it was important to show what the proposed rates look  
29 like at different consumption levels and with different user types. He stated  
30 that the ACSA continues to believe that the value of the clean, safe,

1 reliable water is an incredible value. He mentioned that one penny buys  
2 1.98 gallons of water, which is considerable.

3 Mr. Lunsford stated that the chart on the next slide compares the  
4 ACSA's current monthly bill for a single-family customer to some of its  
5 geographic peers and similar-sized utilities in the state of Virginia. He  
6 stated that the monthly bill at the proposed rate for FY 2023 is shown in the  
7 chart as well. He mentioned that the biggest takeaway is that the ACSA  
8 compares favorably to other utility providers in the state, particularly the  
9 City of Charlottesville. He added that this information was compiled in  
10 conjunction with the formal rate study.

11 Mr. Lunsford stated that the ACSA's monthly bill in comparison to  
12 the City of Charlottesville specifically is reflected in the next slide. He stated  
13 that the ACSA does not have the City's proposed rates for FY 2023 at this  
14 time but will update this slide if they are received in advance of the June  
15 meeting. He stated that one important thing to note is that the City has a  
16 winter and summer rate that are charged depending on the time of year.  
17 He mentioned that the previous slide showed a composite of those two  
18 rates, but this slide shows each one individually. He stated that the ACSA  
19 continues to compare favorably to the City, with even its proposed FY 2023  
20 rate being 13-22% less than the City's FY 2022 rate, depending on the time  
21 of year.

22 Dr. Palmer asked if the average consumption in the City was similar  
23 to that in the County. Mr. Lunsford replied that he could not answer that  
24 with any certainty. He stated that he would suspect that the two are  
25 comparable. Mr. Bowling added that it should be noted that the City also  
26 charges a 10% utility tax, in addition to the consumption charges.

27 Mr. Lunsford stated that he would not belabor the point, but the bar  
28 graph on the next slide is meant to show the steady increase in customer  
29 rates over time. He noted that there was no change in the rates for FY  
30 2021 due to the pandemic. He stated that there was a 5% increase for FY  
31 2022, and a proposed 4.6% increase for the FY 2023 budget. He

1 mentioned, as shown in the next slide, that there was no recommendation  
2 to make any changes to the system connection charges.

3 Mr. Lunsford stated that strictly looking at the operating budget,  
4 represented by the pie chart on the next slide, the purchase of water and  
5 wastewater treatment, debt service related and non-growth related RWSA  
6 projects make up the largest portion of ACSA expenses during the fiscal  
7 year, followed by the Maintenance departmental expenses.

8 Mr. Lunsford stated that the next few slides outlined some key  
9 initiatives for each department, beginning with Administration. He stated  
10 that one of the important undertakings in the Administration department is a  
11 Strategic Best Practices review. He stated that it will be incredibly customer  
12 focused, with the deployment, implementation, and use of several different  
13 systems throughout the organization. He noted that another major initiative  
14 for the Administration department in FY 2023 is the update to the Strategic  
15 Plan.

16 Mr. Lunsford moved to the Engineering group next. He stated that  
17 like years past, the scheduled replacement and repair of aging  
18 infrastructure and equipment is critical to continue to provide a high level of  
19 service to our customers. He stated that there will also be training directed  
20 towards succession planning included in the FY 2023 budget. He  
21 mentioned that the general oversight of the CIP will be major as well, given  
22 the numerous projects going on and scheduled for the near and mid-term  
23 future.

24 Mr. Lunsford stated that within the Finance group, one of the main  
25 initiatives for FY 2023 is the full and final deployment of the AMI technology  
26 throughout the system. He stated that almost all of infrastructure is in  
27 place, except for meter and communication devices on the remaining  
28 20,000 customer accounts. He stated that also included in the FY 2023  
29 budget are succession planning and the redesign of some business  
30 processes. He added that there will also be a formal analysis of the current  
31 billing system, with a proposal for replacement in future fiscal years.

1 Mr. Lunsford stated that in terms of the Information Technology (IT)  
2 department, one of the major initiatives is continuing to support the various  
3 projects being implemented throughout the organization. He mentioned  
4 that all the finance related projects have a major IT component, thus  
5 support from IT is critical.

6 Mr. Lunsford stated that the Maintenance department will continue  
7 to refine the new CMMS workorder and inventory system, which will be a  
8 key initiative during FY 2023. He stated that there will also be an increased  
9 emphasis on training, specifically related to emergency response, safety,  
10 overall system knowledge, and succession planning.

11 Mr. Lunsford stated that there are a number of capital equipment  
12 purchases planned for FY 2023 including two fleet vehicles, a mid-size  
13 excavator, sewer cleaning inspection cameras, and computers and field  
14 tablets. He stated that in terms of the CIP budget for FY 2023, he did not  
15 have much to add to what Jeremy Lynn had already presented, aside from  
16 illustrating the financial impact.

17 Mr. Lunsford moved to the next slide, outlining next steps in the  
18 budget process. He stated that currently, budget inserts are being included  
19 with customer bills, and a link to this information is provided to customers  
20 that receive their bill electronically. He stated that there is a public hearing  
21 scheduled for the June 16<sup>th</sup> meeting, along with a second budget workshop  
22 to follow up on any questions from the Board or customers. He stated that  
23 the staff will also request budget and rate adoption at the June meeting.

24 Mr. Lunsford stated that he wanted to thank every member of the  
25 Lead Team, including Gary O'Connell, for their contributions to the physical  
26 budget document. He noted that there were also several staff members  
27 from each department that contributed to the budget as well, specifically  
28 the ACSA accounting team.

29 Mr. Moore stated that he wanted to echo the thanks for a very  
30 thoughtful presentation. He asked why RWSA's charges to the ACSA went  
31 from around 4-5% per year for many years, to a pivot in FY 2021 to about



1 7-10% per year. Mr. O'Connell replied that simply put, major CIP projects  
2 over \$200 million in a few years' time. He stated that RWSA's projects are  
3 large and expensive and are the biggest driver of the increase to the  
4 ACSA. He noted that this is not unusual, as utilities around the country are  
5 seeing the same thing. He mentioned that RWSA's staff has done a good  
6 job of staggering projects to spread out the costs over time. He added that  
7 the ACSA has been fortunate to build up reserves for rate stabilization  
8 purposes.

9 Mr. Moore stated that speaking of reserves, he asked how much of  
10 the reserves would the ACSA be dipping into. He stated that he recalled it  
11 was about 10%. Mr. Lunsford replied that 10% was correct. Mr. Moore  
12 stated that his concern is dipping into reserves for things that are not  
13 capital, but he feels the use of reserves is a good way to smooth things out  
14 this year. He mentioned, however, that if the ACSA continues to keep  
15 customer increases at 4-5%, while getting hit with larger increases from  
16 RWSA, his fear is that the reserves will run out. Mr. O'Connell replied that  
17 as long as the economy holds, the ACSA should end the year in a good  
18 place financially.

19 Mr. Armstrong stated that he feels for the long-term, the ACSA  
20 needs to consider raising the rates higher to equal what City customers  
21 pay, given that both the City and ACSA water and wastewater treatment  
22 comes from the same source. He stated that he is also concerned about  
23 dipping into reserves. He mentioned that he understands not doing it this  
24 year given the impacts of Covid but would like to consider this in the future.  
25 He stated that the ACSA should also think about excessive users paying  
26 the full amount of the increase from RWSA. He stated that this would not  
27 only keep the rates lower for average users, but also encourage  
28 conservation.

29 Dr. Palmer stated that after spending six years on the RWSA Board  
30 of Directors, she has seen extraordinary improvements in the RWSA  
31 system over the last 20 years. She stated that she appreciates all the work

1 that has gone into compiling the ACSA budget. She mentioned that she is  
2 not concerned about dipping into the reserves, as she knows they are  
3 replenished on a regular basis. She stated that she has an account with the  
4 Rapidan Service Authority for a ¾ inch meter, and she received notice  
5 recently that her monthly bill would increase by \$30 because of the debt  
6 service. She stated that she feels the ACSA has done an excellent job of  
7 avoiding those types of rate shocks to customers.

8 Mr. O'Connell stated that in terms of the higher customer rates in  
9 the City, their system is a much older system and has had major capital  
10 investments. He stated their connection fees are about half of the ACSA's,  
11 and it is fair to say they do not utilize a "growth pays for growth" ideology  
12 like the ACSA. He stated that the third reason for their higher rates is that  
13 they do not have any reserves. He mentioned that it is his understanding  
14 that the City's customer rate increase for next year will be close to  
15 RWSA's, and probably double that of the ACSA's.

16 Mr. Parcels stated that his fellow Board members covered most of  
17 what he had in mind to discuss. He stated that he wanted to add that  
18 keeping customer increases to only 4.6% is great work, especially given  
19 the rate of inflation. He mentioned, however, that he is curious to see how  
20 the ACSA will maintain that level of increase in the future, especially given  
21 the number of projects lined up. He added that he feels it would be good to  
22 stress to customers all that the ACSA is doing to keep the increases as low  
23 as possible.

#### 24 25 7. Compensation Study Recommendations

26 Emily Roach, Human Resources and Administration Manager,  
27 stated that one of the most important strategic goals of the ACSA is to  
28 recruit, retain, and motivate high-performing employees, as they are the  
29 backbone of the organization. She stated that every four years, an outside  
30 consultant is contracted to formally review the ACSA's pay structure. She  
31 stated that last fall, the ACSA retained Frank & Associates to conduct a

1 Classification & Compensation study for the ACSA. She mentioned that  
2 she was very pleased with this study, as every employee had the  
3 opportunity to provide input on their specific positions. She stated that she  
4 would now turn the presentation over to Frank & Associates.

5 Michael Frank, President, and Founder of Frank & Associates  
6 stated that he would give an overview of the study and the major findings,  
7 and then answer any questions the Board may have. He stated that Frank  
8 & Associates was founded in 1992, based in Maryland, and specializes in  
9 Human Resource Management consulting, particularly classification and  
10 pay studies. He stated that the firm specializes in working with public  
11 entities such as counties, municipalities, school systems, and water  
12 authorities.

13 Mr. Frank stated that the primary task of this study was to review  
14 the existing classification and compensation system. He stated that the  
15 purpose of a classification study is to establish internal equity among the  
16 classifications. He stated that the goal is to develop a hierarchy that is  
17 representative of the ascending order of duties and responsibilities in the  
18 positions throughout the organization.

19 Mr. Frank stated that the next major part of the study was the  
20 assessment of market competitiveness of the organization's pay structure.  
21 He stated that relieving compression is also an area of focus when looking  
22 at competitiveness. He mentioned that in order to establish market  
23 competitors, they consider the ACSA's immediate competitors and develop  
24 a specialized survey, supplemented by statistics from various databases.  
25 He stated that the firm then recommends changes to the compensation and  
26 classification systems.

27 Mr. Frank stated that the firm's classification methodology is very  
28 comprehensive, including a job information questionnaire (JIQ) that every  
29 ACSA employee completed. He stated that the JIQ is about 12 pages, and  
30 looks at job duties, equipment used, education and training requirements,  
31 scope of decisions, supervision, work environment, physical effort and

1 hazards, as well as unusual demands. He noted that he wanted to  
2 compliment the ACSA on its job descriptions, as they were in good shape  
3 and very professionally done. He added that after they collected and  
4 reviewed the questionnaires, they went through each position to assess  
5 grade changes.

6 Mr. Frank stated that for the compensation methodology, the first  
7 step was to review the ACSA's current salary and grade structure. He  
8 stated that the firm then developed benchmarks. He noted that benchmarks  
9 are the key to performing a meaningful salary analysis, as they represent  
10 the content of a position, not just the title. He stated that it was also  
11 important to have enough benchmarks to represent all the positions within  
12 the organization. He stated that the firm used 20 benchmarks for this study,  
13 which were also reviewed by the ACSA Lead Team.

14 Mr. Frank stated that there was then a specialized survey created,  
15 which looked at salaries and pay ranges for the ACSA's five specifically  
16 identified competitors- RWSA, City of Charlottesville, UVA, Albemarle  
17 County, and VDOT. He stated that comprehensive responses were  
18 received from the City and RWSA, and that information was supplemented  
19 with information from other data sources. He stated that using this data,  
20 along with things like the consumer price index and economic cost index,  
21 the firm arrived at a salary shortfall of 10% for the ACSA. He added that  
22 this means a recommended 10% increase to the pay structure across the  
23 board.

24 Mr. Frank stated that he would briefly go over the results of the  
25 study, beginning with the classification plan and the recommended  
26 changes. He stated that the table (Attached as Pages \_\_\_\_\_) shows  
27 the current positions and their current grade in the left column. He stated  
28 that the middle column shows those positions that have been  
29 recommended for a grade change, and the far-right column shows the  
30 positions in their recommended grade. He noted that at the bottom of the  
31 table, it shows a new grade recommended. He stated that this was to



1 provide career growth and maintain internal equity throughout the  
2 organization.

3 Mr. Frank stated that there were a few alternative pay scales, as  
4 clients are always provided with more than one option, and the next slide  
5 shows the final pay scale that has been recommended (Attached as Page  
6 \_\_\_\_\_). He stated that the current pay scale is on the left and has ten  
7 grades with a 50% spread across each grade and a 12.5% increase  
8 between each step within the grade. He stated that the recommended pay  
9 scale is on the right and has the 10% increase built into it. He mentioned  
10 that it also has a different spread across each grade, at 60%. He noted  
11 that this is to alleviate compression and ensure employees can sustain  
12 growth. He added that the 12.5% increase between each step was  
13 retained, and an 11<sup>th</sup> grade was added.

14 Dr. Palmer asked if this full 10% increase has already been  
15 included in the budget for FY 2023. Mr. O'Connell replied yes. He added  
16 that if the budget is approved in June, the dollars to fund the salary  
17 increase would be approved. He mentioned that the amended Personnel  
18 Management Plan (PMP) would be approved at that time as well, which  
19 adopts the classification study and the new pay grade structure.

20 Dr. Palmer asked if any mid-point in the competitors' salaries was  
21 targeted during the study. Mr. Frank replied that the purpose of the  
22 benchmarks is to identify the totality of jobs to ensure all the jobs in the  
23 organization are represented. He stated that the mid-point represents the  
24 50<sup>th</sup> percentile of the market, and the study looks at how much difference  
25 there is below the mid-point, which is supplemented by research and  
26 information from various databases. He stated that they then come up with  
27 what the shortfall is which, in this case, came out to 10%.

28 Dr. Palmer stated that there are many organizations that are having  
29 trouble filling a number of different positions. She asked if this was taken  
30 into consideration for any of the ACSA positions when determining the

1 shortfall. She stated that the recommendation is a 10% increase across  
2 the board, but it seems that some positions might not be right at 10%.

3 Mr. Benner replied that there are positions that will not be exactly at  
4 10%. He stated, however, that if the goal was to just do market-based  
5 pricing, it would be done based on each individual job rather than  
6 considering grades. He stated that the 50<sup>th</sup> percentile of the market data is  
7 targeted for comparison purposes, and then the overall increase is  
8 determined. He mentioned that having a 60% spread provides flexibility to  
9 administer those differences in shortfall.

10 Mr. Frank stated that there were certain jobs that were tough to find  
11 in this economy. Dr. Palmer asked if the lower-scale jobs are the ones that  
12 are difficult to fill. Mr. Frank stated that it is a cross-section and not really  
13 restricted to one classification. He stated that there are specialized jobs  
14 and IT jobs that are in demand also.

15 Ms. Roach stated that the ACSA currently has three vacancies, two  
16 of which are utility worker positions. She stated that the third position is in  
17 the IT department, which the ACSA will formally recruit for in July. She  
18 stated that, in her opinion, the organization is in good shape in terms of  
19 staffing. Mr. Frank concurred. He added that the new pay scale should be  
20 helpful in recruiting.

21  
22 8. Items Not on the Agenda

23 Mr. O'Connell stated that he had a couple of items to discuss. He  
24 stated that he just found out this morning that the County Board of  
25 Supervisors conducted a work session yesterday to discuss extending the  
26 Covid emergency ordinance and virtual meetings for County Boards. He  
27 stated that, from what he has heard, they will be asking that Boards go  
28 back to in-person meetings by September 1<sup>st</sup> at the latest. He stated that  
29 he would check in with the Board monthly, but the June Board meeting will  
30 definitely be virtual.

1           Mr. O'Connell stated that the second item he wanted to discuss  
2 was regarding the two regular visitors at the monthly Board meetings. He  
3 stated that the first is Alison Wrabel, who is a reporter for The Daily  
4 Progress and has done an excellent job of covering the meetings for a  
5 number of years. He stated that today will be her last time covering the  
6 Board meeting, and he wanted to wish her a great future wherever she  
7 goes and thank her as well. He stated that the second visitor is Neil  
8 Williamson from the Free Enterprise Forum. He stated that he tweets about  
9 all the ACSA Board meetings, which gets a lot of information out to the  
10 community as he has a strong following. He stated that he wanted to thank  
11 Mr. Williamson for helping to educate the community about what the ACSA  
12 does and is all about.

13           Mr. Roberts stated that he has known Neil Williamson for a long  
14 time, dating back to when he attended the ABC Board meetings. Dr.  
15 Palmer thanked Mr. O'Connell for mentioning Alison and all the work she  
16 has done over the years. She stated that Ms. Wrabel has done the best job  
17 covering County issues of any reporter she has seen in her involvement  
18 with local government. She added that she hopes Ms. Wrabel is going  
19 somewhere good.

20  
21       9.     Executive Session

22           Ms. Trent read a Resolution to enter Executive Session  
23 pursuant to Virginia Code §2.2-3711 A (7) to discuss a legal matter  
24 (Attached as Page\_\_\_\_\_). Mr. Bowling added that the specific legal  
25 matter is the ACSA's contract with Metra Construction.

26           ***Mr. Tolbert moved to approve the Resolution as presented***  
27 ***to the Board; seconded by Mr. Parcels. The Chair asked for a roll-***  
28 ***call vote: Mr. Armstrong, aye; Mr. Moore, aye; Dr. Palmer, aye; Mr.***  
29 ***Parcels, aye; Mr. Tolbert, aye; Mr. Roberts, aye.***

30           The Board of Directors came back into regular session. Ms. Trent  
31 read into record a Resolution stating that only matters so previously stated

**Albemarle County Service Authority Board of Directors**

1 and exempted from open discussion in regular session were discussed in  
2 Executive Session (Attached as Page \_\_\_\_\_).

3 ***Dr. Palmer moved to approve the Resolution as presented***  
4 ***to the Board, seconded by Mr. Parcels. The Chair asked for a roll-***  
5 ***call vote: Mr. Armstrong, aye; Mr. Moore, aye; Dr. Palmer, aye; Mr.***  
6 ***Parcels, aye; Mr. Tolbert, aye; Mr. Roberts, aye.***

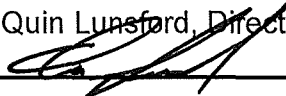
7  
8 10. Adjourn

9 ***There being no further business, Dr. Palmer moved that the***  
10 ***meeting be adjourned, seconded by Mr. Tolbert. All members voted***  
11 ***aye.***

12  
13  
14  
15 \_\_\_\_\_  
16 Gary B. O'Connell, Secretary-Treasurer  
17  
18

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Monthly Financial Reports  <b>STAFF CONTACT/PREPARER:</b> Quin Lunsford, Director of Finance 	<b>AGENDA DATE:</b> June 16, 2022  <b>ACTION:</b> Informational  <b>ATTACHMENTS:</b> Yes
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**BACKGROUND:** Water and sewer financial reports and check registers for the month of May are attached for your review.

**DISCUSSION:**

- Water consumption for the month of April increased 2.7% compared to March. Water consumption for the month of April 2022 compared to April 2021 increased 3.1%.
- RWSA's invoice of \$1,820,145 for the month of April was paid on May 10, 2022.
- Unearned water and sewer connection charges totaled \$2,367,991 at month end.
- System connection charges were above budgeted expectations with \$728,885 recognized in April. Total system connection charges for FY 2022 are less than those in FY 2021 by 21%.
- Water and Wastewater revenues for FY 2022 are above budgeted expectations by 7.1%. Please see the water/wastewater trend analysis included illustrating that when adjustment for expected variations in seasonal consumption, revenues are 7.7% higher than expectations.

**BUDGET IMPACT:** Informational only.

**RECOMMENDATIONS:** None

**BOARD ACTION REQUESTED:** None; informational item only.

**ATTACHMENTS:**

1. Statement of Net Position
2. Year-to-Date Budget to Actual Comparison/Commentary
3. Investment Summary
4. Capacity/System Development Reserves
5. Connection Charges/ERC Analysis
6. Monthly Water Consumption
7. Water and Sewer Report; Customer Class Report
8. Major Customer Analysis
9. Water/Wastewater Revenue Trend Analysis
10. Aged Receivables Analysis
11. Check Register

## ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF NET POSITION  
May 31, 2022

## ASSETS

Cash and cash equivalents	\$ 9,391,511
Accounts receivable	4,420,264
Investments	42,915,427
Capital assets: (net of accumulated depreciation)	175,832,060
Inventory	494,806
Prepays	191,619
Cash and cash equivalents, restricted	<u>546,621</u>

Total assets	<u>233,792,308</u>
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## DEFERRED OUTFLOWS OF RESOURCES

Combined deferred outflows of resources	<u>1,856,772</u>
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## LIABILITIES

Accounts payable	2,198,829
Accrued liabilities	451,913
Compensated absences	693,271
Net pension liability	3,659,743
Other post-employment benefits	1,448,953
Unearned connection fees	2,367,991
Long-term debt	<u>5,142,353</u>

Total liabilities	<u>15,963,053</u>
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## DEFERRED INFLOWS OF RESOURCES

Combined deferred inflows of resources	<u>584,136</u>
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## NET POSITION

<u>219,101,891</u>
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ALBEMARLE COUNTY SERVICE AUTHORITY  
For the Ten Months Ending May 31, 2022

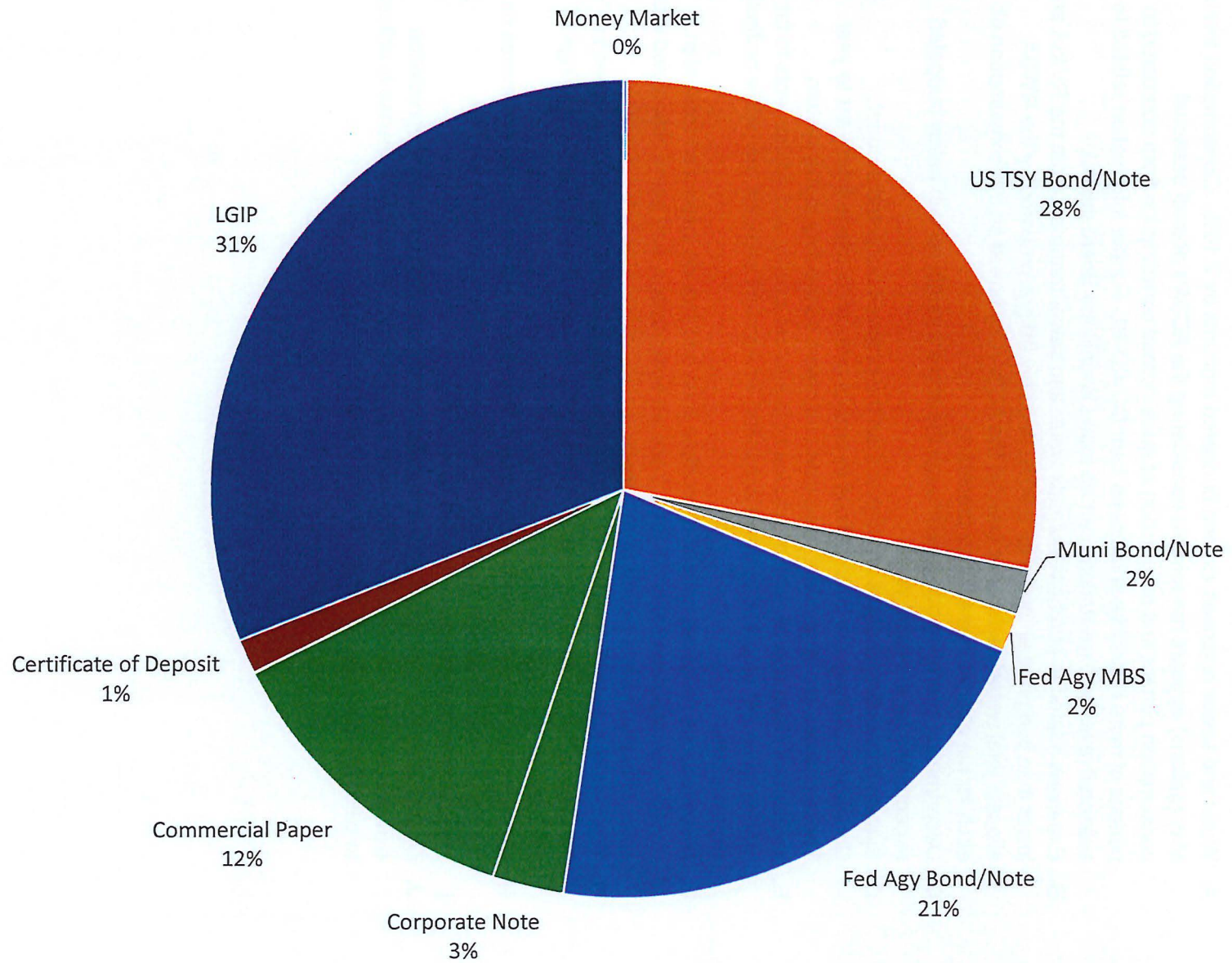
	Budget FY 2022	Budget Year-to-Date 2022	May Actual Year-to-Date	Actual vs. Budget	Variance Percentage
<b>Revenues</b>					
Water Sales	16,543,400.	15,164,783.	16,004,502.	839,719.	5.54%
Sewer Service	14,034,800.	12,865,233.	14,016,566.	1,151,333.	8.95%
<b>Total operating revenues</b>	<b>30,578,200.</b>	<b>28,030,017.</b>	<b>30,021,068.</b>	<b>1,991,051.</b>	<b>7.10% A</b>
<b>Operating Expenses</b>					
Purchase of bulk water	(12,450,600.)	(11,413,050.)	(11,369,392.)	43,658.	(0.38%) B
Purchase of sewer treatment	(9,685,800.)	(8,878,650.)	(8,738,962.)	139,688.	(1.57%) B
Administration	(1,253,400.)	(1,148,950.)	(962,604.)	186,346.	(16.22%) C
Finance	(2,243,574.)	(2,056,610.)	(1,931,129.)	125,481.	(6.10%) C
Information Technology	(1,162,387.)	(1,065,521.)	(1,010,699.)	54,822.	(5.15%) C
Engineering	(2,107,300.)	(1,931,692.)	(1,758,187.)	173,505.	(8.98%) C
Maintenance	(4,018,540.)	(3,683,662.)	(2,967,737.)	715,925.	(19.44%) C
<b>Total operating expenses</b>	<b>(32,921,601.)</b>	<b>(30,178,134.)</b>	<b>(28,738,710.)</b>	<b>1,439,425.</b>	<b>(4.77%)</b>
<b>Operating gain(loss)</b>	<b>(2,343,401.)</b>	<b>(2,148,118.)</b>	<b>1,282,358.</b>	<b>3,430,476.</b>	<b>(159.70%)</b>
<b>Nonoperating Revenues</b>					
System connection charges	7,000,000.	6,416,667.	8,138,312.	1,721,645.	26.83% D
Investment/Interest Income	200,000.	183,333.	(507,504.)	(690,837.)	(376.82%) E
Rental income	16,000.	14,667.	17,142.	2,475.	16.88%
Miscellaneous revenues	455,000.	417,083.	601,281.	184,198.	44.16% F
Federal subsidy, Build America Bonds	87,000.	79,750.	0.	(79,750.)	(100.00%) G
<b>Total nonoperating revenues (expenses)</b>	<b>7,758,000.</b>	<b>7,111,500.</b>	<b>8,249,231.</b>	<b>1,137,731.</b>	<b>16.00%</b>
<b>Nonoperating Expenses</b>					
Miscellaneous expenses	(304,179.)	(278,831.)	(382,485.)	(103,654.)	37.17% H
Bond interest charges	(274,436.)	(251,566.)	(424,422.)	(172,856.)	68.71% I
Depreciation	0.	0.	(3,766,095.)	(3,766,095.)	0.00% J
<b>Total nonoperating revenues (expenses)</b>	<b>(578,615.)</b>	<b>(530,397.)</b>	<b>(4,573,002.)</b>	<b>(4,042,605.)</b>	<b>762.18%</b>
<b>Capital contributions</b>	<b>0.</b>	<b>0.</b>	<b>2,182,597.</b>	<b>2,182,597.</b>	<b>0.00%</b>
<b>Change in Net Position</b>	<b>4,835,984.</b>	<b>4,432,985.</b>	<b>7,141,184.</b>	<b>2,708,199.</b>	<b>61.09%</b>

**Albemarle County Service Authority  
Actual-to-Budget Year to Date Commentary**

- A. Water and sewer revenues exceed budgeted amounts by 7.10%. Consumption through May (gallons) appears reasonable considering the ACSA's normal seasonal consumption pattern and resumption of more normal consumption from compared to periods of more restrictive shutdowns from COVID-19. Further information related to seasonal revenue expectations can be found later in the Board packet.
- B. Expenses related to purchases of bulk water and sewer treatment from the RWSA are lower than budgeted amounts by 0.90%. Monthly billings prepared by the RWSA allocate total water/wastewater flows to the ACSA/City based on the consumption of each for the quarter immediately preceding.
- C. Departmental operating budgets through the current month remain below budgeted expectations for the fiscal year.
- D. System connection charges are higher than the prorated budgeted amount. Connection charges are often difficult to project and can fluctuate from year to year. These charges are dependent upon new customers connecting to the system.
- E. Investment income(loss), which includes both interest income and adjustments to fair market value are recorded in these accounts. Investment earnings are below budgeted expectations.
- F. Miscellaneous revenues consist of multiple lines and include inspection fees, plan review, reconnections/initial bill fees, invoiced water usage, and gains associated with sales of capital assets retired from service
- G. The federal subsidy related to the 2010 debt issuance of BAB will not be earned in FY 22. These bonds were refunded in August 2021 yielding a net budgetary savings of \$1.2 million.
- H. The budgeted amount includes expected outlays for capital equipment and losses on disposal of capital assets. Equipment is capitalized when placed in service.
- I. Bond interest charges are recorded as incurred.
- J. Depreciation is not a budgeted line item accounting for the variance. Depreciation expense is considered during the annual budgeting process as this expense is utilized to calculate the required contribution to the 3r reserve.



## Allocation of Investments by Type



## Portfolio Summary and Statistics

For the Month Ending **May 31, 2022**

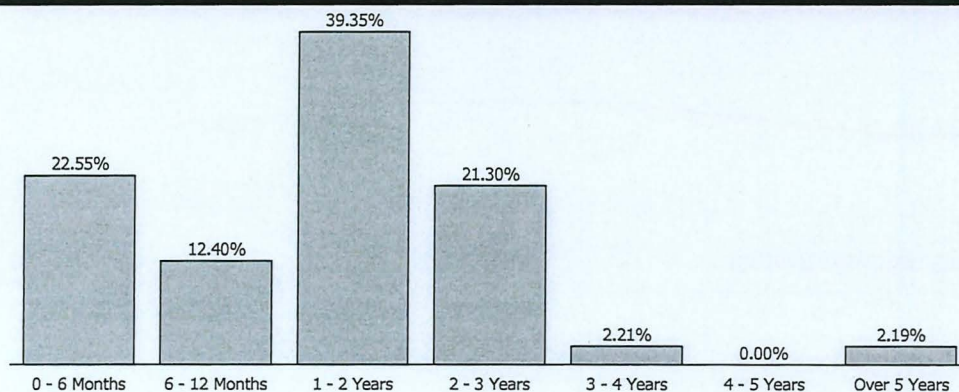
### ACSA OPERATING FUNDS - 03100100

#### Account Summary

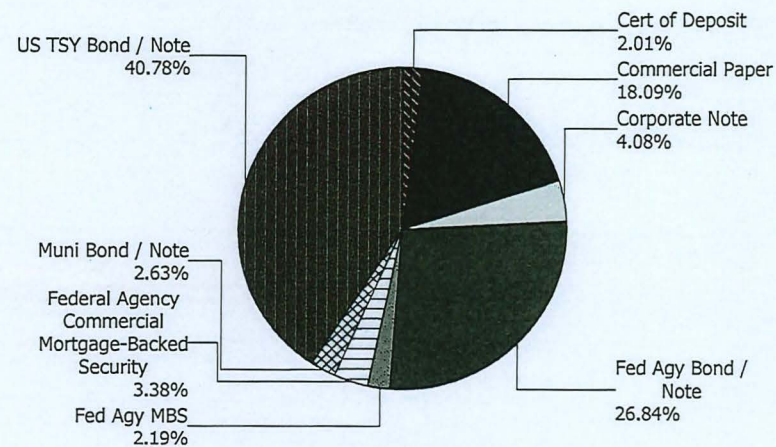
Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	12,530,000.00	12,114,947.59	40.78
Municipal Bond / Note	800,000.00	780,497.00	2.63
Federal Agency Mortgage-Backed Security	660,918.85	650,797.93	2.19
Federal Agency Commercial	1,005,446.88	1,003,878.22	3.38
Mortgage-Backed Security			
Federal Agency Bond / Note	8,110,000.00	7,972,902.96	26.84
Corporate Note	1,225,000.00	1,211,002.08	4.08
Commercial Paper	5,400,000.00	5,375,494.20	18.09
Certificate of Deposit	600,000.00	598,451.62	2.01
<b>Managed Account Sub-Total</b>	<b>30,331,365.73</b>	<b>29,707,971.60</b>	<b>100.00%</b>
Accrued Interest		42,716.36	
<b>Total Portfolio</b>	<b>30,331,365.73</b>	<b>29,750,687.96</b>	

Unsettled Trades                      250,000.00                      250,000.00

#### Maturity Distribution



#### Sector Allocation

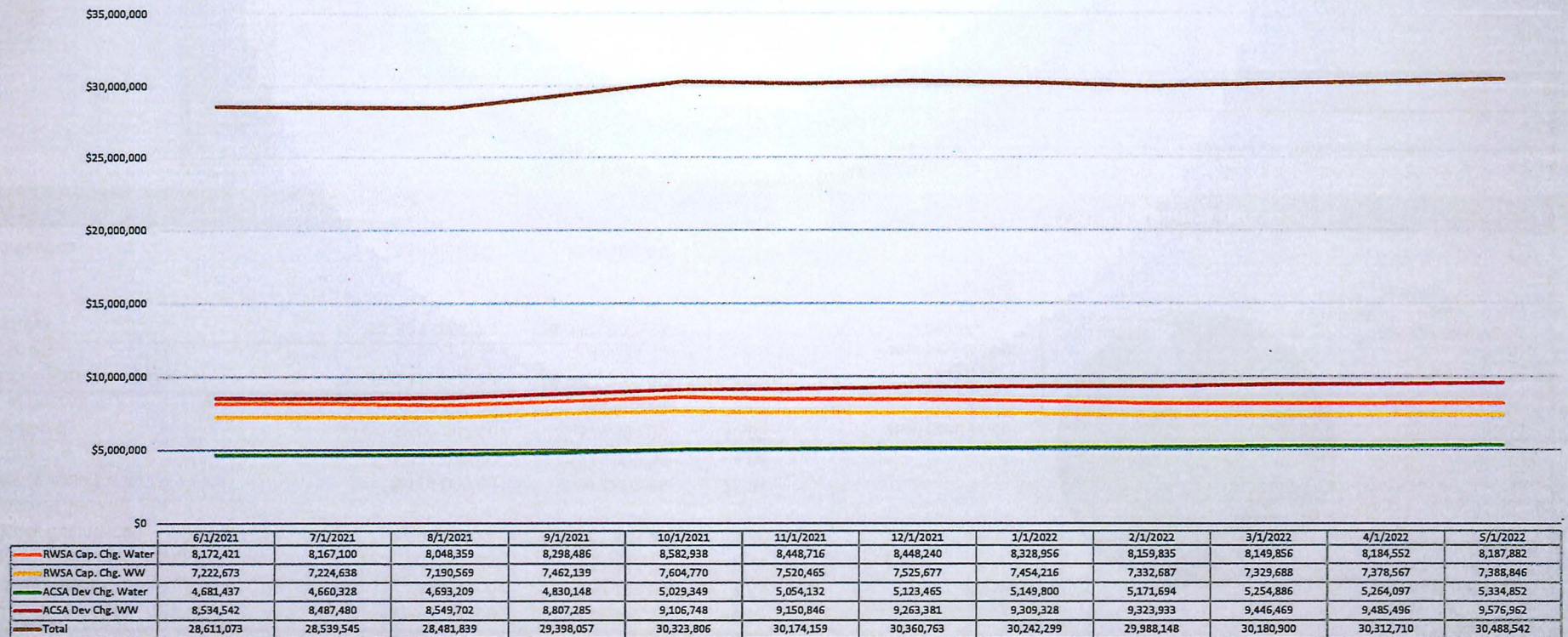


#### Characteristics

Yield to Maturity at Cost	0.84%
Yield to Maturity at Market	2.26%
Weighted Average Days to Maturity	570



## Capacity/System Development Reserves



Note: Additions to Capacity/System Development Reserves are from monthly connection charges, reductions to the reserves are from monthly growth related expenses/capital costs.

**Albemarle County Service Authority**  
**Connection Fee Analysis**  
**April 2022**

Area	April 2022 Monthly Connection Fees	April 2021 Monthly Connection Fees	\$ Change	% Change
Crozet	\$ 67,350	\$ 377,160	\$ (309,810)	-82%
Urban	661,535	1,368,928	(707,393)	-52%
Scottsville	-	-	-	-
<b>Total Connection fees</b>	<b>\$ 728,885</b>	<b>\$ 1,746,088</b>	<b>\$ (1,017,203)</b>	<b>-58%</b>
<b>Through April</b>				
Area	YTD FY 2022 Connection Fees	YTD FY 2021 Connection Fees	\$ Change	% Change
Crozet	\$ 1,328,640	\$ 2,529,375	\$ (1,200,735)	-47%
Urban	5,598,752	6,248,368	(649,616)	-10%
Scottsville	-	-	-	-
<b>Total Connection fees</b>	<b>\$ 6,927,392</b>	<b>\$ 8,777,743</b>	<b>\$ (1,850,351)</b>	<b>-21%</b>
Area	April 2022 ERC's	April 2021 ERC's	Change	% Change
Crozet	5	28	(23)	-82%
Urban	50	102	(52)	-51%
Scottsville	-	-	-	-
<b>Total ERC's</b>	<b>55</b>	<b>130</b>	<b>(75)</b>	<b>-58%</b>
<b>Through April</b>				
Area	YTD FY 2022 ERC's	YTD FY 2021 ERC's	Change	% Change
Crozet	99	188	(89)	-47%
Urban	416	464	(48)	-10%
Scottsville	-	-	-	-
<b>Total ERC's - YTD</b>	<b>515</b>	<b>652</b>	<b>(137)</b>	<b>-21%</b>

Note: This analysis shows, both in dollars and ERC's, connections by month and YTD for the period under review. As noted above, connection fees are comparable to the prior year. See the "Three Year Connection Fee Comparison" for further discussion related to this change.

**Albemarle County Service Authority  
Three Year Connection Fee Comparison  
April 2022**

<b>Area</b>	<b>April 2022 ERC's</b>	<b>April 2021 ERC's</b>	<b>April 2020 ERC's</b>
<b>Crozet</b>	5	28	3
<b>Urban</b>	50	102	18
<b>Scottsville</b>	-	-	-
<b>Total ERC's</b>	55	130	21

<b>Through April</b>			
<b>Area</b>	<b>YTD 2022 ERC's</b>	<b>YTD 2021 ERC's</b>	<b>YTD 2020 ERC's</b>
<b>Crozet</b>	99	188	195
<b>Urban</b>	416	464	492
<b>Scottsville</b>	-	-	1
<b>Total ERC's - YTD</b>	515	652	688

Note: The information above presents ERCs by month and YTD for the current and past two fiscal years. As noted in the YTD portion of the analysis, YTD ERCs in Fiscal Year 2022 appear reasonable considering continued development within the ACSA's service area.

Albemarle County Service Authority  
Consumption Analysis  
Fiscal Year 2022

	FY 2022 Consumption	FY 2021 Consumption		Monthly Precipitation (In.)	
				FY 2022	FY 2021
July	162,247,194	158,247,100	2.53%	2.30	3.94
August	183,549,927	160,498,300	14.36%	4.60	7.90
September	167,986,757	152,817,725	9.93%	5.46	4.90
October	159,438,005	146,675,175	8.70%	5.26	5.90
November	148,641,595	143,888,525	3.30%	1.01	4.84
December	140,551,064	129,490,677	8.54%	0.26	5.70
January	142,192,560	141,920,135	0.19%	4.04	2.37
February	127,434,073	119,808,532	6.36%	1.81	4.51
March	131,636,356	128,124,393	2.74%	3.50	2.13
April	135,122,656	131,020,458	3.13%	3.23	3.24
May		145,813,573	-100.00%		0.81
June		161,128,651	-100.00%		2.80
	1,498,800,187	1,719,433,244		31.47	49.04
<b>YTD</b>	<b>1,498,800,187</b>	<b>1,412,491,020</b>	<b>6.11%</b>	<b>31.47</b>	<b>45.43</b>

Note: Consumption through April 2022 is 6.11% more than the same period in fiscal year 2021. Monthly precipitation figures have been included for comparison purposes. Trends in rainfall can sometimes correlate with trends in consumption however, depending on the intensity, days between rain events, or other factors, this may not always be the case.

Note: Precipitation data obtained from National Oceanic and Atmospheric Administration (NOAA):  
<https://www.ncdc.noaa.gov/cdo-web/search>.



## Water and Sewer Report

April 2022

<b>Billed (in gallons) by Area:</b>	<b>Water</b>	<b>Sewer</b>
Crozet	15,906,500	14,706,575
Scottsville	1,374,536	746,841
Urban	117,806,373	108,573,717
Red Hill	35,247	0
<b>Total</b>	<b>135,122,656</b>	<b>124,027,133</b>

<b>Billing (in gallons) by Sewer Plant:</b>	
AWT	123,280,292
less Glenmore	(3,339,191)
Urban Total	119,941,101
Scottsville	746,841
<b>Total</b>	<b>120,687,942</b>

<b>Number of Installed Meters:</b>	
Urban	16
Crozet	6
Scottsville	0
<b>Total</b>	<b>22</b>

<b>Metered Consumption (billed by invoice):</b>	
Urban	385,700
Crozet	0
Scottsville	0
<b>Total</b>	<b>385,700</b>

<b>Unmetered Consumption:</b>	
ACSA Fire Flow Consump	Urban 11,348
<b>Total</b>	<b>11,348</b>

<b>Unmetered Leak Consumption:</b>	
5th Street Station	Urban 50
101 Terrybrook Dr	Urban 100
1834 Natali Ln	Urban 1,000
<b>Total</b>	<b>1,150</b>

### Billed Consumption (in gallons) for Selected Customers

	<u>Water</u>	<u>Sewer</u>
*Virginia Land Holding	423,725	423,725
Southwood Mobile Homes	1,804,000	5,159,061
Turtle Creek Apts.	1,311,950	1,307,350
Old Salem Apts.	1,539,200	1,539,200
Monroe Health & Rehab.	723,104	723,104
Sunrise Senior "Colonnades"	908,281	888,081
ACRJ	1,089,550	1,035,550
Westminster Canterbury	1,095,540	1,095,540
SEMF Charleston	1,565,706	1,565,706
Martha Jefferson Hospital	1,421,203	1,084,203
Crozet Mobile Home Village	254,300	254,300
Fashion Square Mall	132,551	132,551
County of Albemarle	1,329,682	1,138,594
University of Virginia	1,945,645	1,722,854
Wegmans	327,624	327,624

	<u>Water</u>	<u>Sewer</u>
Boar's Head Inn	438,890	365,490
Farmington, Inc.	720,612	417,536
Westgate Apts.	1,142,935	1,141,635
Abbington Crossing	1,966,133	1,966,133
Four Seasons Apts	1,649,827	1,649,827
Ch'ville/Alb Airport	132,028	132,686
State Farm	37,670	37,670
Hyatt @ Stonefield	317,902	317,902
Doubletree	579,246	579,246
Arden Place Apts.	473,125	473,125
Hilton Garden Inn	253,570	253,570
Ridgewood Homes	0	n/a
The Lodge @ Old Trail	283,340	283,340
Gov't-Defense Complex	556,263	555,994
Harris Teeter Stores	117,992	117,992

\* indicates Industrial Discharge Permit Holders



April 2022

## WATER

Class Type	Number of Connections by Area			Total
	Urban	Crozet	Scottsville	
Single-Family Residential	15,544	3,671	196	19,411
Multi-Family Residential	542	43	3	588
Commercial (Offices)	203	12	5	220
Commercial (Other)	910	76	52	1,038
Industrial	36	9	4	49
Institutional	171	32	12	215
<b>Total Water Accounts</b>	<b>17,406</b>	<b>3,843</b>	<b>272</b>	<b>21,521</b>
Plus Multiple Units	12,582	748	89	13,419
<b>Total Water Units</b>	<b>29,988</b>	<b>4,591</b>	<b>361</b>	<b>34,940</b>

## SEWER

Class Type	Number of Connections by Area			Total
	Urban	Crozet	Scottsville	
Single-Family Residential	13,237	3,391	158	16,786
Multi-Family Residential	511	41	4	556
Commercial (Offices)	187	12	5	204
Commercial (Other)	705	52	44	801
Industrial	15	5	1	21
Institutional	133	25	10	168
<b>Total Sewer Accounts</b>	<b>14,788</b>	<b>3,526</b>	<b>222</b>	<b>18,536</b>
Plus Multiple Units	12,165	745	56	12,966
<b>Total Sewer Units</b>	<b>26,953</b>	<b>4,271</b>	<b>278</b>	<b>31,502</b>

## POPULATION SERVED

Population served is the total Single-Family and Multi-Family units using an occupancy of 2.5 residents per unit:

	Urban	Crozet	Scottsville	Total
<b>Total Water Customers</b>	70,315	11,048	713	82,075
<b>Total Sewer Customers</b>	63,505	10,340	535	74,381



Albemarle County Service Authority  
Major Customer Analysis  
April 2022 and March 2022

	April 2022		March 2022		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
Martha Jefferson Hospital	1,421,203	1,084,203	1,135,550	919,550	25.16%	17.91%
Southwood Mobile Homes	1,804,000	5,159,061	1,607,000	4,501,423	12.26%	14.61%
Abbingtion Crossing	1,966,133	1,966,133	1,808,000	1,808,000	8.75%	8.75%
Four Seasons Apts.	1,649,827	1,649,827	1,532,000	1,532,000	7.69%	7.69%
Westminster Canterbury	1,095,540	1,095,540	1,019,930	1,019,930	7.41%	7.41%
County of Albemarle	1,329,682	1,138,594	1,311,686	1,195,297	1.37%	-4.74%
SEMF Charleston	1,565,706	1,565,706	1,552,100	1,552,100	0.88%	0.88%
ACRJ	1,089,550	1,035,550	1,131,890	1,107,890	-3.74%	-6.53%
Turtle Creek Apts.	1,311,950	1,307,350	1,373,500	1,369,000	-4.48%	-4.50%
University of Virginia	1,945,645	1,722,854	2,049,671	1,835,705	-5.08%	-6.15%
Old Salem Apts.	1,539,200	1,539,200	1,627,400	1,627,400	-5.42%	-5.42%
Westgate Apts.	1,142,935	1,141,635	1,249,000	1,248,100	-8.49%	-8.53%

Note: Only major customers of the ACSA have been analyzed above. For purposes of this analysis, major customers are those who, on average, consume over one million gallons per month. Variations can occur for a variety of reasons including but not limited to: conscious conservation efforts, expansion, weather, vacancies, etc.

\* -- Consumption/usage in gallons.

**Albemarle County Service Authority  
Major Customer Analysis  
April 2022 and April 2021**

	April 2022		April 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
University of Virginia	1,945,645	1,722,854	1,635,600	1,629,800	18.96%	5.71%
Abbingdon Crossing	1,966,133	1,966,133	1,688,300	1,688,300	16.46%	16.46%
Old Salem Apts.	1,539,200	1,539,200	1,418,300	1,418,300	8.52%	8.52%
County of Albemarle	1,329,682	1,138,594	1,228,400	1,159,200	8.25%	-1.78%
Four Seasons Apts.	1,649,827	1,649,827	1,563,000	1,563,000	5.56%	5.56%
Turtle Creek Apts.	1,311,950	1,307,350	1,276,600	1,276,000	2.77%	2.46%
Southwood Mobile Homes	1,804,000	5,159,061	1,804,000	1,005,696	0.00%	412.98%
Martha Jefferson Hospital	1,421,203	1,084,203	1,423,400	1,073,400	-0.15%	1.01%
Westgate Apts.	1,142,935	1,141,635	1,161,000	1,160,000	-1.56%	-1.58%
Westminster Canterbury	1,095,540	1,095,540	1,123,000	1,120,000	-2.45%	-2.18%
ACRJ	1,089,550	1,035,550	1,420,000	1,371,000	-23.27%	-24.47%
SEMF Charleston	1,565,706	1,565,706	2,105,950	2,105,950	-25.65%	-25.65%

**Note:** Only major customers of the ACSA have been analyzed above. For purposes of this analysis, major customers are those who, on average, consume over one million gallons per month. Variations can occur for a variety of reasons including but not limited to: conscious conservation efforts, expansion, weather, vacancies, etc.

\* -- Consumption/usage in gallons.

**Albemarle County Service Authority**

**Major Customer Analysis**

**Year-to-date Comparison: Current Year/Prior Year -- April**

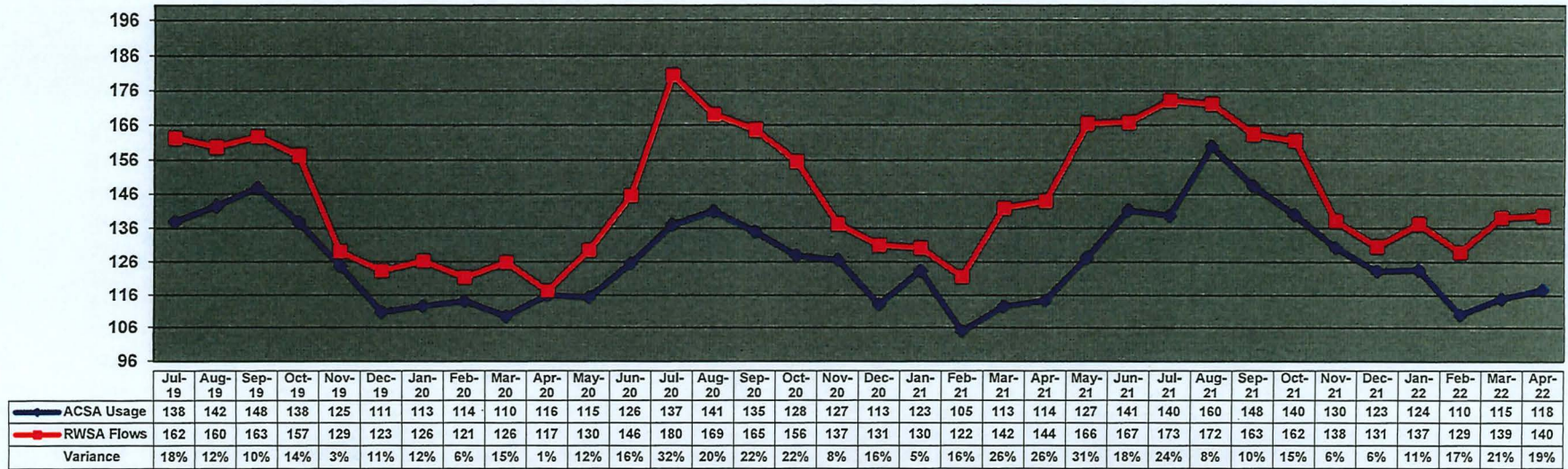
	YTD FY 2022		YTD FY 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	13,569,723	10,904,974	9,114,300	6,904,400	48.88%	57.94%
University of Virginia	22,755,056	21,836,552	19,429,100	18,883,500	17.12%	15.64%
Westminster Canterbury	14,749,390	13,177,390	13,340,000	12,832,000	10.57%	2.69%
Martha Jefferson Hospital	17,803,302	10,612,202	16,127,600	10,240,800	10.39%	3.63%
Westgate Apts.	12,320,935	12,309,735	11,969,000	11,954,800	2.94%	2.97%
Four Seasons Apts.	15,717,827	15,717,827	15,658,000	15,658,000	0.38%	0.38%
Abbingdon Crossing	17,768,733	17,768,733	18,264,900	18,264,900	-2.72%	-2.72%
SEMF Charleston	19,729,656	19,729,656	20,577,650	20,577,650	-4.12%	-4.12%
Old Salem Apts.	14,987,900	14,987,900	15,756,000	15,756,000	-4.87%	-4.87%
Southwood Mobile Homes	18,489,000	41,667,903	19,682,000	19,095,179	-6.06%	118.21%
ACRJ	13,919,260	12,802,260	15,637,000	14,788,000	-10.99%	-13.43%
Turtle Creek Apts.	12,996,650	12,976,350	16,657,900	16,648,000	-21.98%	-22.05%

**Note:** Only major customers of the ACSA have been analyzed above. For purposes of this analysis, major customers are those who, on average, consume over one million gallons per month. Variations can occur for a variety of reasons including but not limited to: conscious conservation efforts, expansion, weather, vacancies, etc.

\* -- Consumption/usage in gallons.

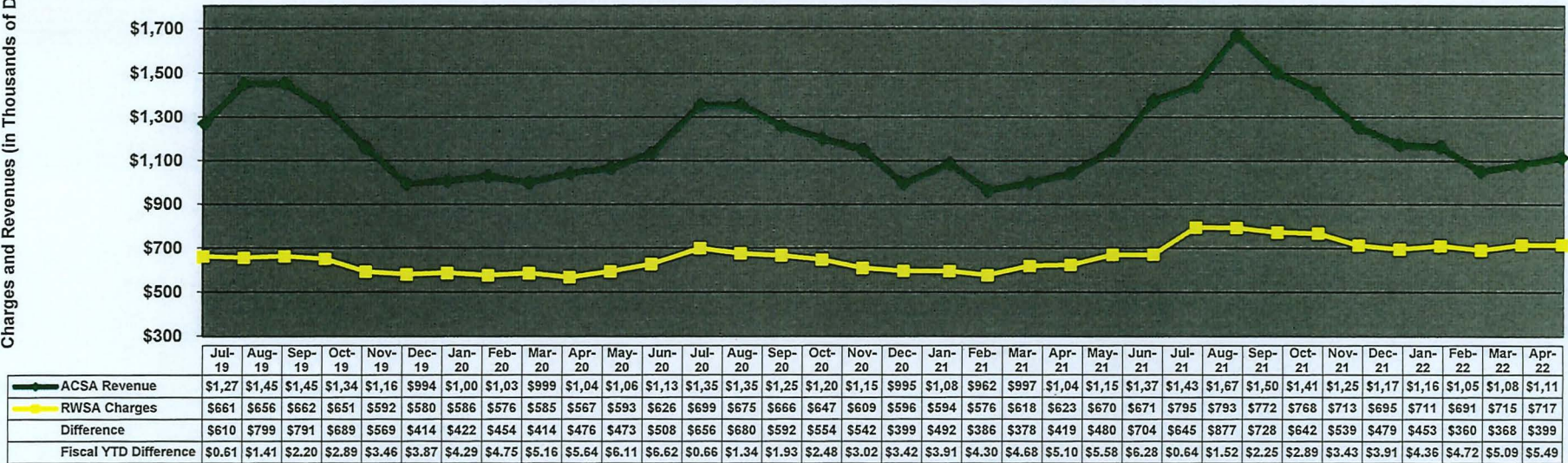
### FY 2020, 2021, and 2022 Urban Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



### FY 2020, 2019, and 2022 Urban Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

Charges and Revenues (in Thousands of Dollars)

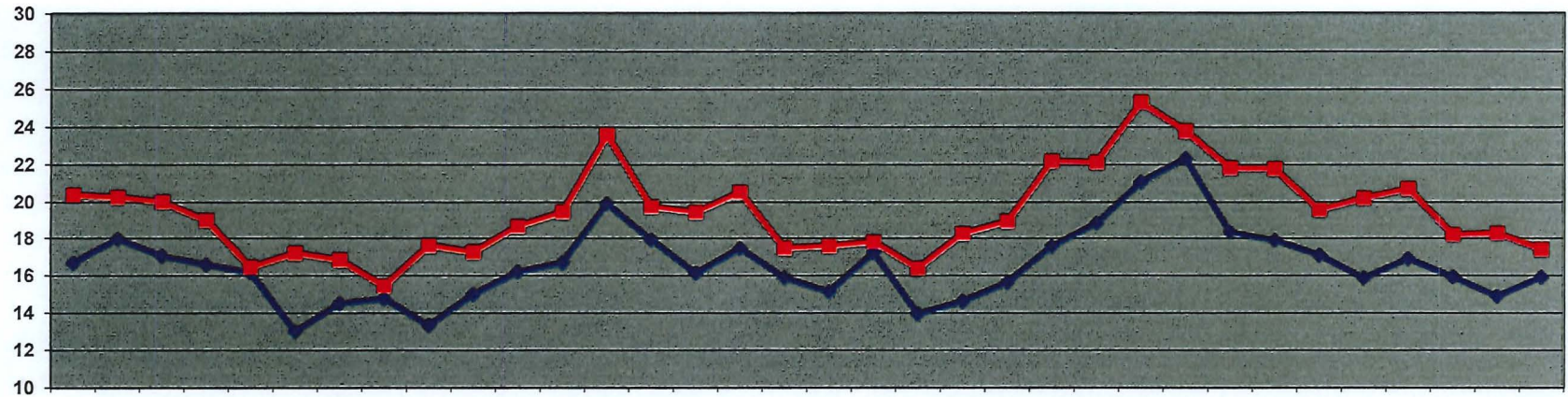


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars



**FY 2020, 2021, and 2022 Crozet Water Comparison  
RWSA Flows & ACSA Customer Usage**

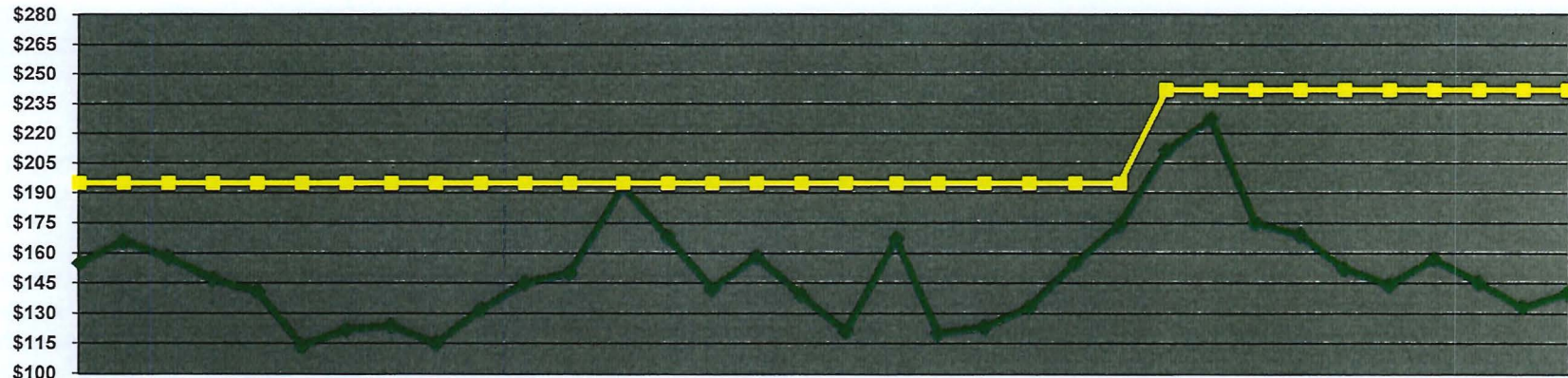
Flows & Usage (in Millions of Gallons)



	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
ACSA Usage	17	18	17	17	16	13	15	15	13	15	16	17	20	18	16	17	16	15	17	14	15	16	18	19	21	22	18	18	17	16	17	16	15	16
RWSA Flows	20	20	20	19	16	17	17	15	18	17	19	19	24	20	19	21	17	18	18	16	18	19	22	22	25	24	22	22	20	20	21	18	18	17
Variance	22%	13%	17%	14%	2%	32%	16%	4%	32%	15%	15%	17%	18%	10%	21%	18%	10%	16%	3%	17%	25%	21%	26%	18%	20%	6%	19%	22%	15%	27%	23%	14%	23%	9%

**FY 2020, 2021, and 2022 Crozet Water Comparison  
RWSA Billed Water Charges & ACSA Billed Water Revenues**

Charges and Revenues (in Thousands of Dollars)

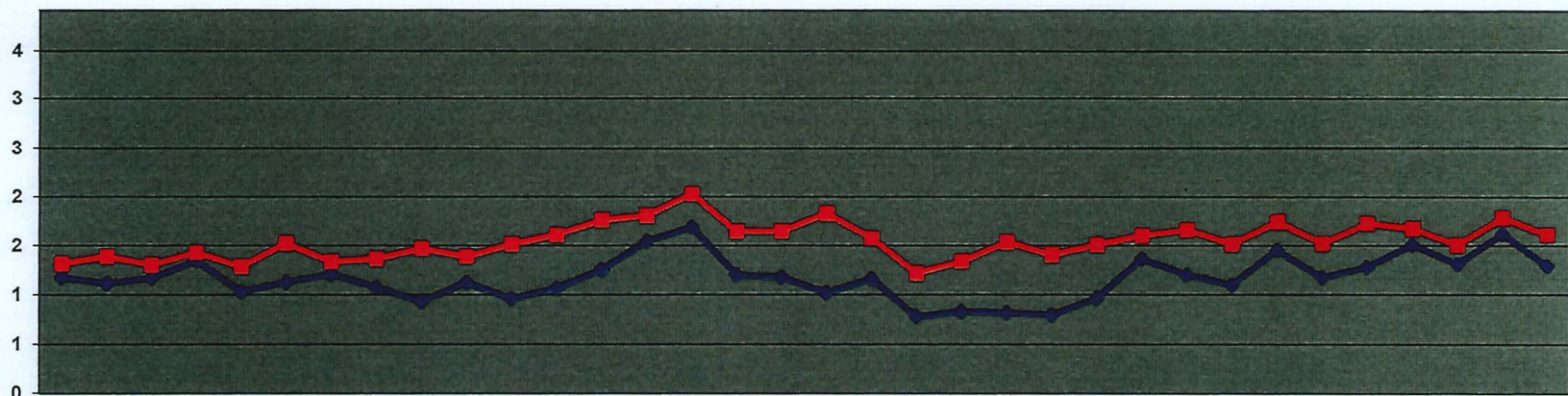




	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
ACSA Revenue	\$155	\$166	\$158	\$147	\$141	\$114	\$122	\$124	\$115	\$132	\$145	\$150	\$193	\$168	\$142	\$158	\$139	\$121	\$167	\$120	\$123	\$133	\$155	\$174	\$211	\$227	\$175	\$169	\$152	\$144	\$157	\$145	\$133	\$140
RWSA Charges	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242
Difference	(\$40)	(\$29)	(\$37)	(\$48)	(\$54)	(\$81)	(\$73)	(\$71)	(\$80)	(\$63)	(\$50)	(\$45)	(\$2)	(\$27)	(\$53)	(\$37)	(\$56)	(\$74)	(\$28)	(\$75)	(\$72)	(\$62)	(\$40)	(\$21)	(\$31)	(\$15)	(\$67)	(\$73)	(\$90)	(\$98)	(\$85)	(\$97)	(\$109)	(\$102)
Fiscal YTD Difference	-\$0.0	-\$0.0	-\$0.1	-\$0.1	-\$0.2	-\$0.2	-\$0.3	-\$0.4	-\$0.5	-\$0.5	-\$0.6	-\$0.6	\$0.00	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.2)	(\$0.3)	(\$0.4)	(\$0.5)	(\$0.6)	(\$0.7)



# FY 2020, 2021, and 2022 Scottsville Water Comparison RWSA Flows & ACSA Customer Usage

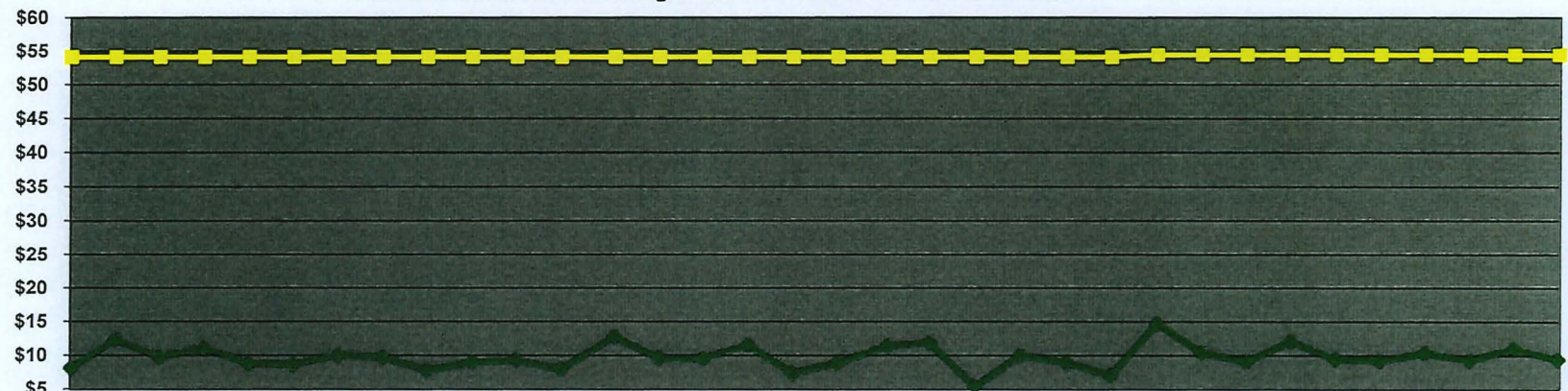
Flows & Usage (in Millions of Gallons)



	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
 ACSA Usage	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	2	1
 RWSA Flows	1.4	1.5	1.4	1.5	1.4	1.6	1.4	1.4	1.5	1.5	1.6	1.7	1.8	1.9	2.1	1.7	1.7	1.9	1.7	1.3	1.4	1.6	1.5	1.6	1.7	1.7	1.6	1.8	1.6	1.8	1.8	1.6	1.9	1.7
Variance	11%	22%	10%	6%	23%	32%	10%	24%	53%	22%	53%	47%	38%	16%	19%	35%	38%	73%	33%	51%	55%	79%	69%	51%	17%	36%	35%	19%	28%	33%	10%	13%	10%	23%

# FY 2020, 2021, and 2022 Scottsville Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

Charges and Revenues (in Thousands of Dollars)

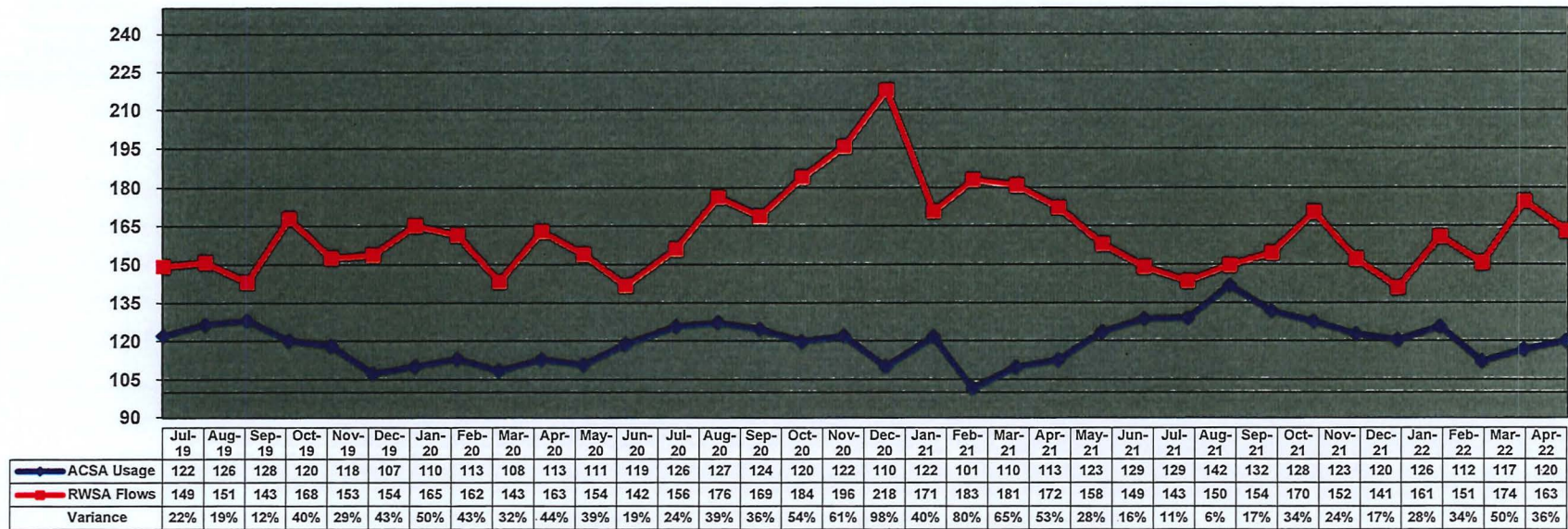


	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22
 ACSA Revenue	\$8	\$12	\$10	\$11	\$9	\$9	\$10	\$10	\$8	\$9	\$9	\$8	\$13	\$10	\$10	\$11	\$7	\$9	\$11	\$12	\$5	\$10	\$9	\$7	\$15	\$10	\$9	\$12	\$9	\$9	\$10	\$9	\$11	\$9
RWSA Charges	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54	\$54
Difference	-\$46	-\$42	-\$44	-\$43	-\$45	-\$45	-\$44	-\$44	-\$46	-\$45	-\$45	-\$46	-\$41	-\$45	-\$45	-\$43	-\$47	-\$45	-\$43	-\$42	-\$49	-\$44	-\$45	-\$47	-\$40	-\$44	-\$45	-\$42	-\$45	-\$44	-\$45	-\$44	-\$45	-\$45
Fiscal YTD Difference	-\$0.0	-\$0.0	-\$0.1	-\$0.1	-\$0.2	-\$0.2	-\$0.3	-\$0.3	-\$0.4	-\$0.4	-\$0.4	-\$0.5	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.2)	(\$0.2)	(\$0.3)	(\$0.3)	(\$0.3)	(\$0.4)



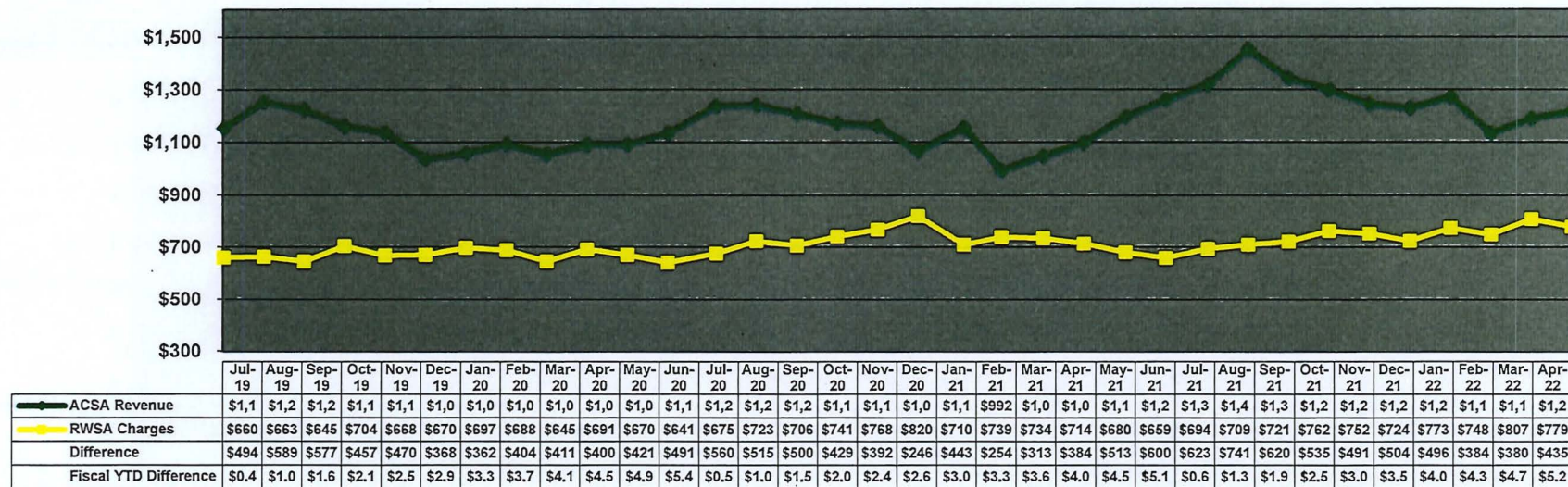
**FY 2020, 2021, and 2022 Urban (including Glenmore) & Crozet Sewer Comparison  
ACSA Customer Usage & RWSA Flows**

Usage & Flows (in Millions of Gallons)



**FY 2020, 2021, and 2022 Urban (including Glenmore) & Crozet Sewer Comparison  
ACSA Billed Sewer Usage & RWSA Billed Sewer Charges**

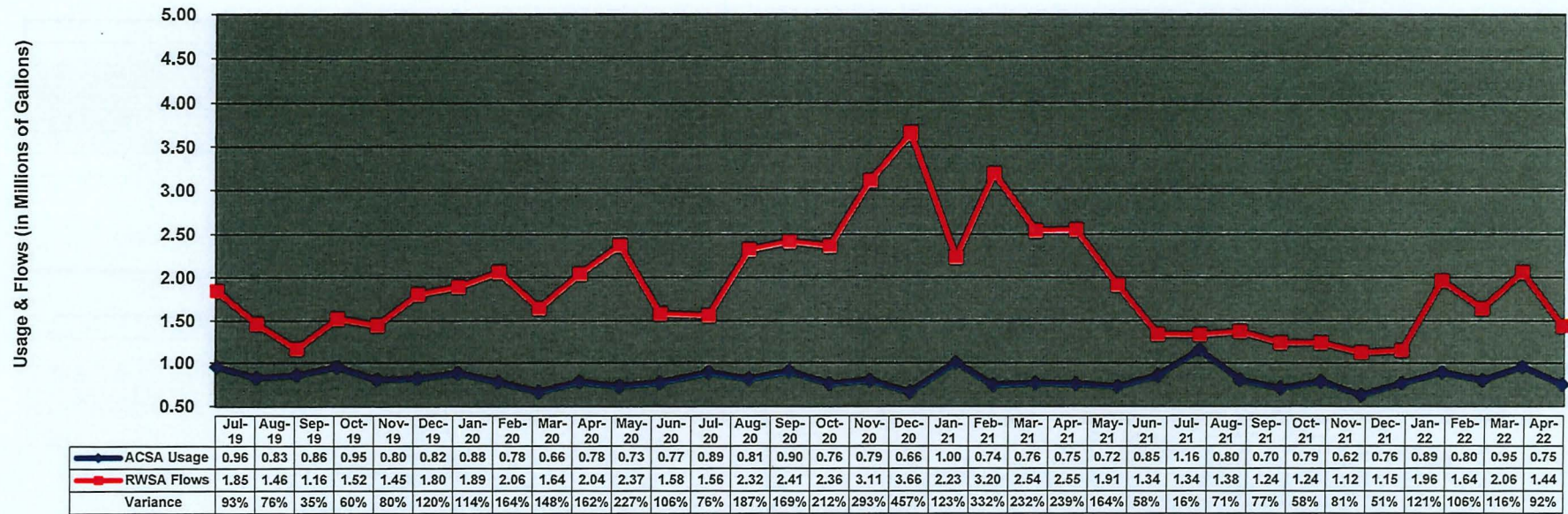
Charges & Revenues (in Thousands of Dollars)



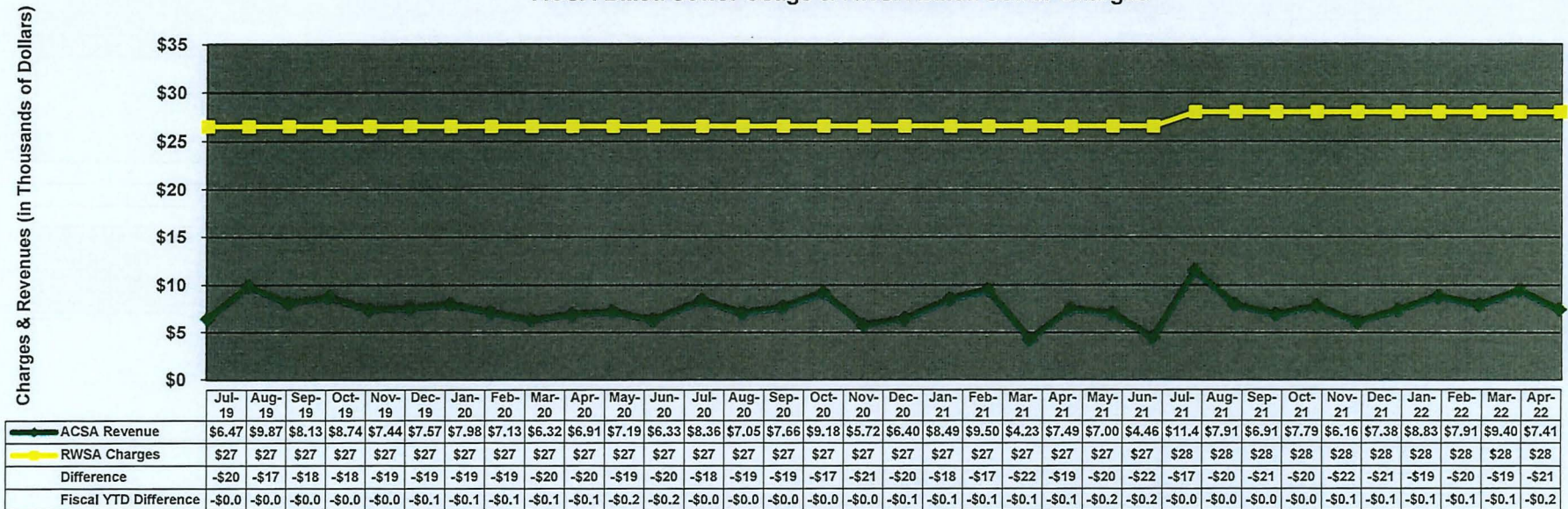
Note: Fiscal YTD Difference (ONLY) in Millions of Dollars



### FY 2020, 2021, and 2022 Scottsville Sewer Comparison ACSA Customer Usage & RWSA Flows



### FY 2020, 2021, and 2022 Scottsville Sewer Comparison ACSA Billed Sewer Usage & RWSA Billed Sewer Charges



Note: Fiscal YTD Difference (ONLY) in Millions of Dollars



## Single-Family Residential Water Usage

(Including irrigation through exclusion, irrigation, and auxiliary meters)

	FY 2020											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	42,713,300	43,137,333	43,334,400	43,096,780	42,936,430	42,119,430	42,703,630	42,241,370	41,816,500	44,763,900	44,866,800	45,270,400
Level 2 (3,001 - 6,000 gallons)	15,949,700	16,292,100	16,866,900	16,130,400	14,335,400	12,178,000	13,878,000	12,751,500	11,702,100	17,979,400	18,259,500	19,520,800
Level 3 (6,001 - 9,000 gallons)	4,810,200	5,067,100	5,227,300	5,376,600	3,511,800	2,062,800	2,654,300	2,244,300	1,845,500	4,227,900	4,419,500	5,469,300
Level 4 (over 9,000 gallons)	7,075,500	7,794,200	8,297,500	8,434,400	3,764,200	1,254,000	1,733,000	1,154,300	2,152,500	1,849,800	2,662,900	3,968,100
Total	70,548,700	72,290,733	73,726,100	73,038,180	64,547,830	57,614,230	60,968,930	58,391,470	57,516,600	68,821,000	70,208,700	74,228,600

	FY 2021											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,910,300	45,665,700	45,167,300	44,787,100	45,134,400	44,331,500	45,900,400	43,314,333	43,786,600	44,618,100	45,900,923	46,255,313
Level 2 (3,001 - 6,000 gallons)	21,030,200	19,112,200	17,329,000	16,285,100	16,315,200	14,519,300	18,251,700	12,572,600	13,283,000	14,314,500	17,440,134	19,373,374
Level 3 (6,001 - 9,000 gallons)	7,266,400	5,921,900	4,575,900	4,441,300	3,890,700	2,817,300	4,255,500	2,201,100	2,371,500	2,609,300	4,280,004	6,283,886
Level 4 (over 9,000 gallons)	9,237,400	7,302,100	4,762,100	4,978,000	3,886,400	1,744,700	2,307,000	1,477,100	1,583,000	1,631,400	3,370,714	7,573,293
Total	83,444,300	78,001,900	71,834,300	70,491,500	69,226,700	63,412,800	70,714,600	59,565,133	61,024,100	63,173,300	70,991,775	79,485,866

	FY 2022											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,715,768	46,650,649	45,763,766	45,032,204	45,171,862	45,419,967	45,519,835	43,528,147	44,213,375	44,847,991		
Level 2 (3,001 - 6,000 gallons)	18,273,794	20,170,499	17,049,266	15,725,032	15,151,382	14,875,487	15,122,551	12,929,554	12,730,722	13,260,281		
Level 3 (6,001 - 9,000 gallons)	6,123,440	7,439,890	5,100,810	4,617,427	3,808,811	2,996,781	3,076,904	2,659,279	2,230,016	2,424,233		
Level 4 (over 9,000 gallons)	8,544,212	14,373,474	7,815,394	7,173,929	4,280,811	2,811,464	3,100,290	2,921,259	1,746,818	1,865,133		
Total	78,657,214	88,634,512	75,729,236	72,548,592	68,412,866	66,103,699	66,819,580	62,038,239	60,920,931	62,397,638	-	-

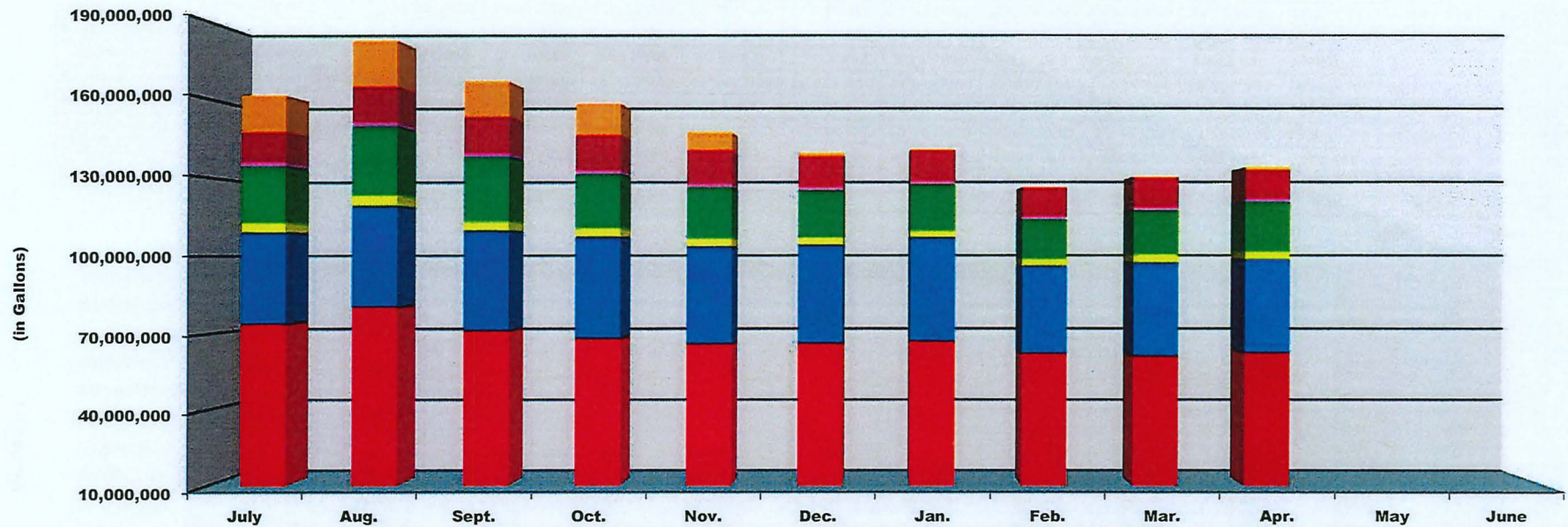
## System-Wide Irrigation Water Usage

(All usage measured through exclusion, irrigation, and auxiliary meters)

FY 2022	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	227,735	245,814	228,478	203,450	155,121	17,400	3,524	3,931	8,114	24,844		
Level 2 (3,001 - 6,000 gallons)	962,522	1,040,603	904,153	849,482	602,101	69,638	14,390	13,183	17,563	39,381		
Level 3 (6,001 - 9,000 gallons)	1,134,487	1,351,889	1,085,629	1,060,900	690,400	56,305	11,043	10,729	12,057	34,193		
Level 4 (over 9,000 gallons)	11,756,763	15,108,350	11,413,176	9,936,698	5,645,695	1,263,435	441,698	329,481	459,753	960,114		
Total	14,081,507	17,746,655	13,631,436	12,050,529	7,093,317	1,406,778	470,655	357,324	497,487	1,058,531	-	-



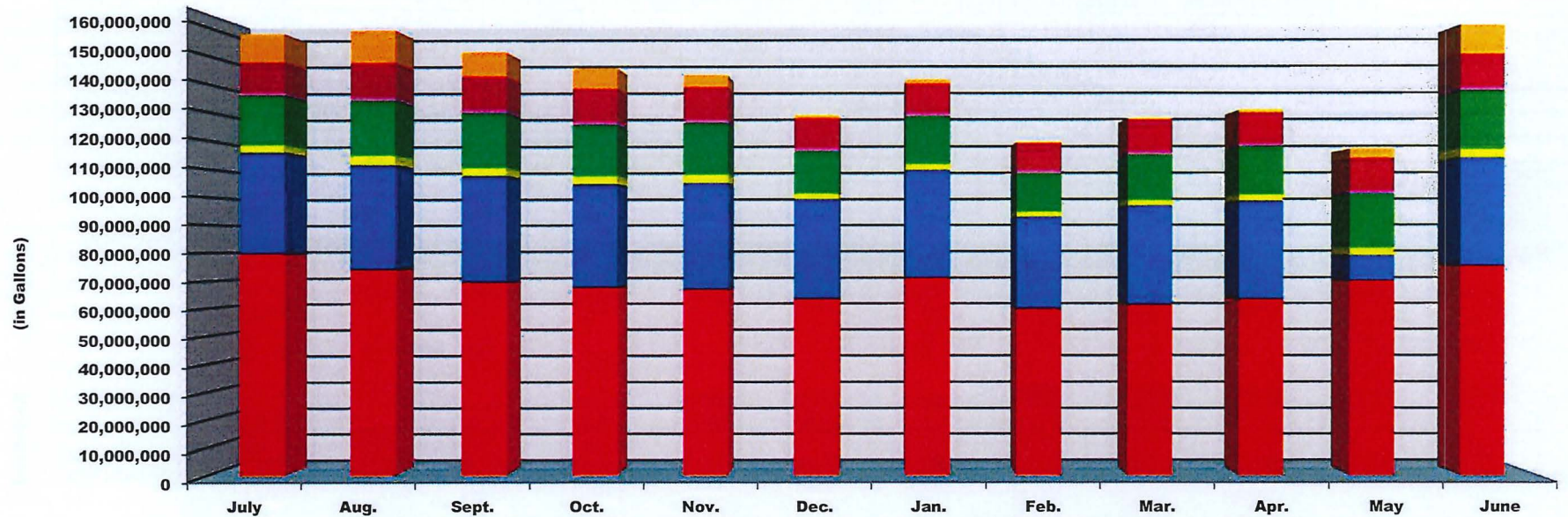
Monthly Water Consumption Fiscal Year 2022



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	8.73%	9.74%	8.19%	7.63%	4.82%	1.01%	0.34%	0.28%	0.38%	0.79%	0.00%	0.00%
Total Irrigation	14,081,507	17,746,655	13,631,436	12,050,529	7,093,317	1,406,778	470,655	357,324	497,487	1,058,531		
Institutional - Domestic Consumption	11,582,738	13,489,815	13,865,774	13,494,096	12,724,964	11,630,981	11,883,862	10,962,679	11,319,135	11,212,974		
Industrial	1,262,587	1,519,053	1,193,165	1,128,786	1,121,916	1,050,113	810,668	718,305	787,267	845,945		
Comm. (Other) - Domestic Consumption	21,372,075	26,208,337	24,479,570	20,510,511	19,291,182	17,778,992	17,574,070	15,092,224	16,832,508	18,691,391		
Offices - Domestic Consumption	3,879,956	4,069,097	3,591,164	3,441,196	3,335,735	3,025,301	2,634,609	2,778,047	3,334,693	3,305,569		
MFR - Domestic Consumption	35,402,612	38,868,005	38,709,217	39,341,545	37,682,580	38,067,253	40,137,903	34,042,165	36,211,107	36,066,312		
SFR - Domestic Consumption	73,692,893	80,350,479	71,047,224	67,925,415	65,790,587	65,994,951	66,908,674	61,974,946	60,946,308	62,355,766		

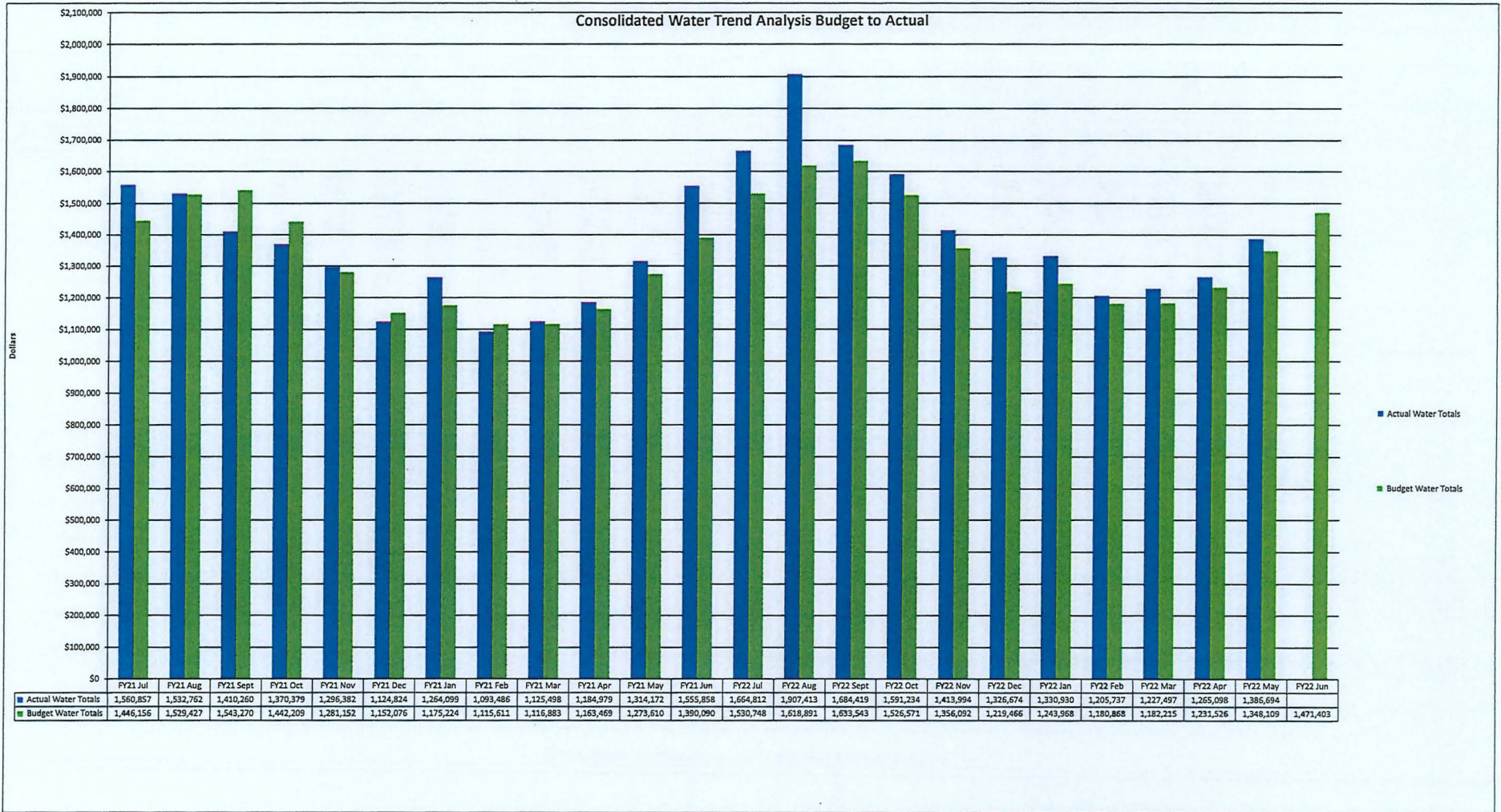


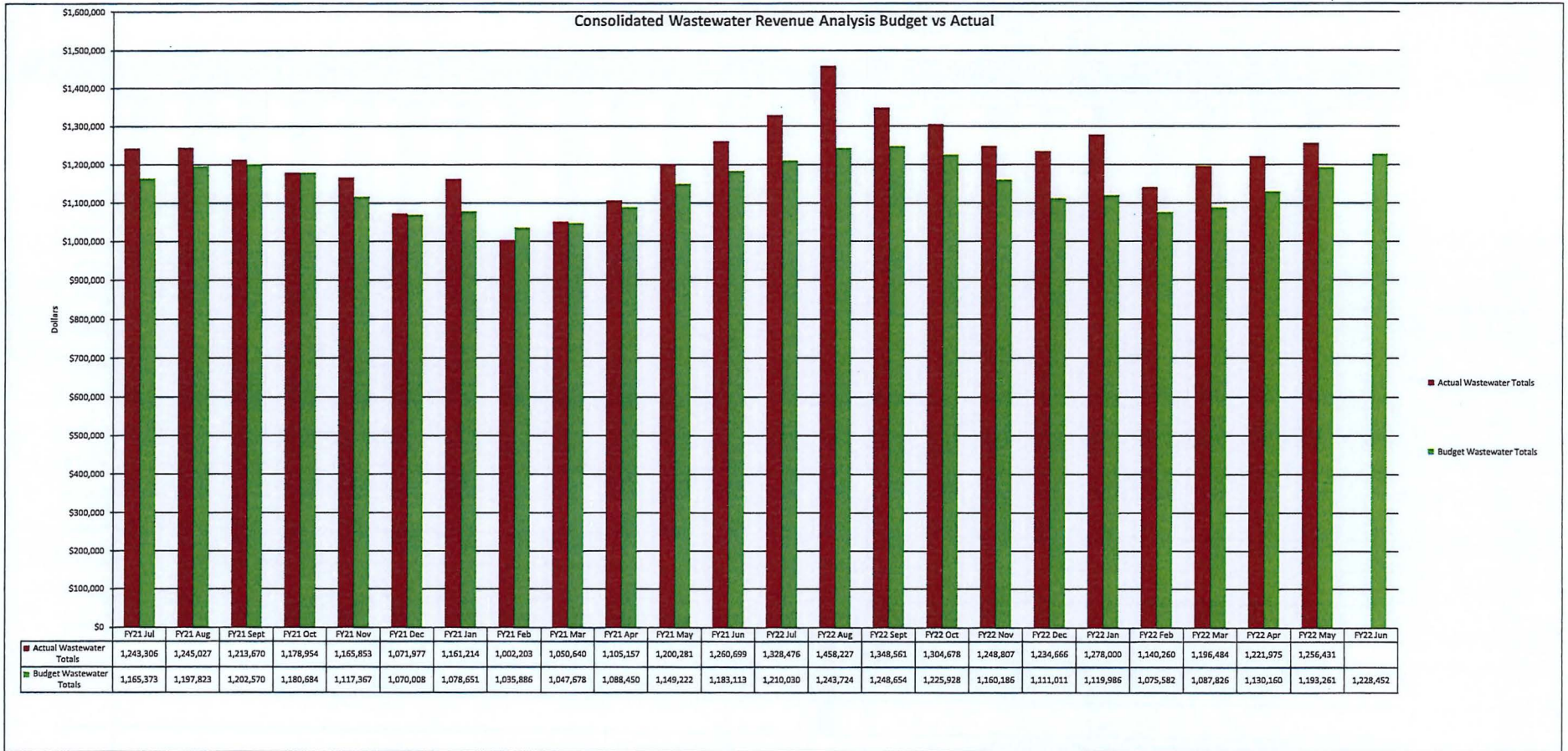
Monthly Water Consumption Fiscal Year 2021



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	6.43%	7.32%	5.75%	5.06%	2.94%	0.85%	0.99%	0.38%	0.35%	0.69%	2.81%	6.44%
Total Irrigation	10,119,091	11,616,375	8,666,494	7,348,137	4,183,034	1,083,884	1,388,900	448,272	442,048	894,200	3,277,869	10,315,679
Institutional - Domestic Consumption	10,568,409	12,140,425	11,678,506	11,592,763	11,532,166	10,326,116	10,458,000	9,512,728	11,284,152	10,850,000	11,623,430	11,941,286
Industrial	886,300	1,008,000	998,100	964,600	959,200	898,200	866,700	1,017,500	887,700	842,500	942,247	919,754
Comm. (Other) - Domestic Consumption	17,206,900	18,949,400	18,962,000	17,753,400	17,829,600	14,671,800	16,424,700	13,374,600	15,838,400	16,733,200	19,222,088	20,173,174
Offices - Domestic Consumption	2,911,400	3,649,600	3,121,500	3,109,800	3,273,900	2,403,400	2,476,900	2,068,300	2,213,000	2,563,700	2,911,328	3,450,136
MFR - Domestic Consumption	36,132,000	37,252,500	37,977,025	37,009,175	37,967,925	35,675,750	38,491,150	32,947,050	35,512,025	35,090,050	8,922,190	38,394,860
SFR - Domestic Consumption	79,627,400	74,038,200	69,379,800	67,387,100	66,738,600	63,181,700	70,731,000	59,544,933	61,021,500	63,113,371	69,645,238	75,023,673











**Albemarle County Service Authority**  
**May 2022 Checks**

CHECK NUMBER	CHECK DATE	VENDOR NAME	AMOUNT	DESCRIPTION OF ITEMS OVER \$5,000
Wire	5/10/2022	Rivanna Water & Sewer Authority	1,820,145.01	Monthly service billing for water/sewer treatment
62826	05/13/2022	Core & Main LP	360,253.21	AMI Project
62883	05/13/2022	Tyler Technologies Inc	119,811.00	SAAS Services FY 4/1/22 - 3/31/23 & MUNIS - ERP Implementation
62854	05/13/2022	Linco Inc	115,358.50	Oak Forest Pump Station Abandonment April 22
62943	05/31/2022	Linco Inc	62,225.00	Oak Forest Pump Station Abandonment 5/1-13/22
62952	05/31/2022	Ramboll Americas Engineering Solutions Inc	38,138.00	Briarwood Water Main Replacement 1/2 - 4/14/22
62859	05/13/2022	Metra Industries	35,843.20	Hessian Hills WMRP Construction April 22
62838	05/13/2022	Fortiline Inc	33,660.00	Emergency Purchase - 3/4" meters for inventory
62931	05/31/2022	ESRI	26,451.00	ESRI Renewal 6/12/22 - 6/11/23
62965	05/31/2022	Stemmle Plumbing	23,100.00	Wet Well cleaning
62869	05/13/2022	Provantage, LLC	22,800.00	Computer Replacements
62860	05/13/2022	Michael Baker International Inc	21,376.68	Bellair - Liberty Hills Sewer, 2/28-4/3/22
62929	05/31/2022	E Source Companies, LLC	17,673.61	AMI Prof Svcs April 22
62989	05/31/2022	Whitman, Requardt & Associates	17,646.71	Scottsville Phase 4 WM Replacement 3/13-4/9/22
62956	05/31/2022	Paymentus	16,597.43	Transaction Fees for April 22
62983	05/31/2022	UVA Darden School Foundation	15,120.00	Women in Leadership - A. Walker & E. Roach 10/24 - 28/22
62863	05/13/2022	Ramboll Americas Engineering Solutions Inc	14,365.00	Biscuit Run Sewer Replacement 1/2-2/28/22
62925	05/31/2022	Dewberry Engineers Inc	13,567.50	Jefferson Village WMRP - Design thru 1/28/22 & Various
62810	05/13/2022	Bank of America	10,987.94	Office Supplies, Memberships, Tools, Travel, Software Renewals
62831	05/13/2022	Dixon Engineering, Inc.	10,715.00	Cleaning, Maintenance Inspection & Chlorine
62888	05/13/2022	Verizon Wireless	8,935.76	Monthly Cellular Service
62951	05/31/2022	Moore's Electrical & Mechanical Construction Inc	8,922.24	Server Room Mini-split replacement - Emergency
62973	05/31/2022	St John, Bowling, Lawrence & Quagliana LLP	7,630.00	Legal Services April 22
62858	05/13/2022	Mayer Electric Supply Company Inc	7,212.86	North Fork VFD Parts & Various
62961	05/31/2022	Quarles Petroleum Inc	7,200.72	Monthly Fuel
62870	05/13/2022	Quarles Petroleum Inc	5,361.82	Monthly Fuel
62830	05/13/2022	Dewberry Engineers Inc	5,059.00	Barracks West Water Main Replacement thru 3/25/22
62833	05/13/2022	Dominion Energy Virginia	4,156.45	
62894	05/13/2022	Whitman, Requardt & Associates	4,015.79	
62949	05/31/2022	Mayer Electric Supply Company Inc	3,731.60	
62930	05/31/2022	Eds Floor Care Services LLC	3,703.33	
62919	05/31/2022	County of Albemarle	3,691.98	
62932	05/31/2022	Evoqua Water Technologies LLC	3,674.00	
62988	05/31/2022	WaterPIO	3,500.00	
62855	05/13/2022	Lowes Companies Inc	3,279.98	
62982	05/31/2022	USABlueBook	3,140.67	
62866	05/13/2022	PFM Asset Management LLC	2,982.57	
62927	05/31/2022	Dominion Energy Virginia	2,937.42	
62971	05/31/2022	Siemens Industry Inc	2,801.75	

62803	05/02/2022	Silver Streak Media LLC	2,500.00
62827	05/13/2022	County of Albemarle	2,437.06
62914	05/31/2022	City of Charlottesville	2,434.69
62954	05/31/2022	ODP Business Solutions, LLC	2,379.89
62834	05/13/2022	Ennas Technology Systems Integration Inc	2,280.00
62885	05/13/2022	UniFirst Corporation	2,273.21
62856	05/13/2022	Mailing Services of Virginia	2,231.70
62960	05/31/2022	Prism Contractors & Engineers Inc	2,033.66
62963	05/31/2022	Reserve Account	2,000.00
62889	05/13/2022	Virginia Utility Protection Service	1,974.00
62980	05/31/2022	Tyler Technologies Inc	1,956.00
62995	05/31/2022	Guardian	1,945.36
62849	05/13/2022	James River Communications Inc	1,918.56
62924	05/31/2022	Mark Delp	1,734.76
62862	05/13/2022	NewGen Strategies & Solutions	1,620.97
62908	05/31/2022	Campbell Equipment	1,591.12
62937	05/31/2022	Flora Pettit PC	1,575.00
62981	05/31/2022	UniFirst Corporation	1,547.50
62999	05/31/2022	Minnesota Life Insurance Company	1,524.39
62839	05/13/2022	Freeman Industries, Inc.	1,500.00
62938	05/31/2022	Fortiline Inc	1,428.04
62824	05/13/2022	Comcast Business	1,418.78
62874	05/13/2022	Rivanna Water & Sewer Authority	1,412.00
62812	05/13/2022	BIS Digital, Inc.	1,410.60
62998	05/31/2022	Phillip Weatherly/LD&B Insurance Agency Inc	1,356.70
62864	05/13/2022	ODP Business Solutions, LLC	1,241.83
62892	05/13/2022	Richard Wagaman	1,230.00
62920	05/31/2022	Cues	1,229.92
62962	05/31/2022	Rappahannock Electric Cooperative	1,120.80
62825	05/13/2022	Consolidated Pipe & Supply Co Inc	1,088.00
62966	05/31/2022	S L Williamson Co Inc	999.00
62977	05/31/2022	Lorraine Thomas	900.00
62944	05/31/2022	Mailing Services of Virginia	893.80
62829	05/13/2022	Data West Corporation	855.00
62934	05/31/2022	Ferguson Enterprises LLC #1300	826.12
62872	05/13/2022	Rivanna Conservation Alliance	750.00
62867	05/13/2022	Prism Contractors & Engineers Inc	745.53
62857	05/13/2022	Malloy Ford	739.03
62809	05/13/2022	Aqua Air Laboratories Inc	700.00
62899	05/13/2022	Aqua Air Laboratories Inc	700.00
62853	05/13/2022	LB Technology Inc	687.50
62990	05/31/2022	ACAC	682.00



62997	05/31/2022	Herbert Beskin Trustee	669.00
62974	05/31/2022	Super Shoe Stores Inc	607.44
62804	05/04/2022	VACORP	563.33
62985	05/31/2022	VACORP	563.33
62967	05/31/2022	S.I.S. Paint Inc	538.02
62879	05/13/2022	The Supply Room Companies Inc	529.14
62901	05/31/2022	Advance Auto Parts	517.69
62987	05/31/2022	Virginia Rural Water Association	507.27
62986	05/31/2022	Virginia Department	500.00
62976	05/31/2022	TFJ Environmental Health Consultants, Inc.	480.00
62896	05/13/2022	Cincinnati Insurance Company	464.67
62953	05/31/2022	Claudia Oelschlager	450.80
62815	05/13/2022	Campbell Equipment	447.96
62819	05/13/2022	Central Virginia Builders Inc.	444.27
62916	05/31/2022	Comcast	441.47
62917	05/31/2022	Core & Main LP	435.44
62897	05/13/2022	Treasurer of Virginia	430.90
63003	05/31/2022	Treasurer of Virginia	430.90
62900	05/13/2022	Edward Glass	406.43
62975	05/31/2022	The Supply Room Companies Inc	379.75
62852	05/13/2022	Robert Kusyk	375.67
62873	05/13/2022	Rivanna Solid Waste Authority	370.00
62905	05/31/2022	American Pest	368.00
62861	05/13/2022	Moore's Electrical & Mechanical Construction Inc	365.00
62969	05/31/2022	See-Mor Truck Tops & Customs	359.00
62958	05/31/2022	Planet Technologies, Inc.	352.00
62945	05/31/2022	Malloy Ford	328.10
62994	05/31/2022	Cincinnati Insurance Company	316.80
62886	05/13/2022	University Tire & Auto Center Inc	309.50
62821	05/13/2022	Gloria Clark	300.00
62877	05/13/2022	Jeanne Stanborough	300.00
62884	05/13/2022	U S Bank	291.67
62922	05/31/2022	The Daily Progress	284.60
62964	05/31/2022	Ricoh USA Inc	275.00
62939	05/31/2022	Francis Hall	271.97
62911	05/31/2022	Jessica Carter	257.77
62890	05/13/2022	VoiceLink Communications	254.20
62918	05/31/2022	County of Albemarle	245.45
63001	05/31/2022	Snap Fitness	239.76
62902	05/31/2022	Advantage Office Systems	227.94
63000	05/31/2022	Piedmont Family YMCA	225.00
62817	05/13/2022	Cardinal Home Center	223.62

62848	05/13/2022	Hydraflo, Inc.	212.70
62907	05/31/2022	Appalachian Power	212.67
62845	05/13/2022	Patricia Hott	200.00
62928	05/31/2022	Jathaniel Dorsey	200.00
62871	05/13/2022	Republic Services	198.24
62811	05/13/2022	Charles & Rose-Marie Battig	192.84
62823	05/13/2022	Comcast	189.85
62940	05/31/2022	Hathaway	187.95
62851	05/13/2022	Jim Price Chevrolet	186.11
62893	05/13/2022	Water Environment Federation	165.00
62880	05/13/2022	Tencarva Machinery Company Inc	160.19
62957	05/31/2022	Performance Signs LLC	160.00
62816	05/13/2022	Martha K Campbell	155.36
62898	05/13/2022	Virginia Department	150.00
63004	05/31/2022	Virginia Department	150.00
62903	05/31/2022	Aireco Supply Inc	141.86
62836	05/13/2022	Ferguson Enterprises LLC #1300	140.96
62996	05/31/2022	The Gym	130.00
62895	05/13/2022	Chris Yung	121.02
62984	05/31/2022	UVA-WorkMed	120.00
62835	05/13/2022	Flexible Benefit Administrators, Inc	119.00
62865	05/13/2022	Marc Peery	117.67
62909	05/31/2022	Capital Electric	115.55
62950	05/31/2022	Judith Meyer	104.39
62841	05/13/2022	Jennifer Givens	100.00
62881	05/13/2022	Gerald and Beverly Terrell	100.00
62882	05/13/2022	Thomas Jefferson Soil & Water Conservation	100.00
62955	05/31/2022	Shane Corpolongo	100.00
62972	05/31/2022	Southern Property	99.43
62807	05/13/2022	Advance Auto Parts	92.41
62828	05/13/2022	Culpeper Auto Parts	92.16
62822	05/13/2022	Clear Communication & Electronics Inc	86.50
62923	05/31/2022	Michael & Cheryl Debitetto	84.44
62959	05/31/2022	Ferguson Enterprises LLC #3326	84.00
62847	05/13/2022	Carrie Hunter	83.91
62942	05/31/2022	Jeremiah Keith	83.49
62941	05/31/2022	Scott Hinton	79.65
62875	05/13/2022	S L Williamson Co Inc	78.44
62979	05/31/2022	Timmons Group, Inc.	75.00
62808	05/13/2022	Always Batteries Inc	72.32
62891	05/13/2022	W A Wells Excavating LLC	70.00
62832	05/13/2022	Document Destruction of Virginia, LLC	69.95

62926	05/31/2022	Document Destruction of Virginia, LLC	69.95
62921	05/31/2022	Culpeper Auto Parts	69.74
62842	05/13/2022	Holly Gunderson	69.04
62936	05/31/2022	D. R. Fletcher	65.75
62970	05/31/2022	Rhoda Shulaw	60.51
62846	05/13/2022	Kyle Hubbard	60.00
62814	05/13/2022	Donald Burns	56.42
62910	05/31/2022	Cardinal Home Center	48.66
62933	05/31/2022	Flexible Benefit Administrators, Inc	41.25
62850	05/13/2022	MyFleetCenter.com	40.49
62805	05/05/2022	Anytime Fitness - Zion VA	40.00
62915	05/31/2022	Clear Communication & Electronics Inc	40.00
62991	05/31/2022	Anytime Fitness-Pantops	40.00
62992	05/31/2022	Anytime Fitness-Ruckersville	40.00
62993	05/31/2022	Anytime Fitness - Zion VA	40.00
63002	05/31/2022	Snap Fitness Hollymead	39.96
62868	05/13/2022	Brandy Proffitt Heislup	37.72
62843	05/13/2022	Eugene Heil	35.90
62878	05/13/2022	Stanley Martin	35.35
62904	05/31/2022	Albemarle Lock & Safe Company	33.95
62818	05/13/2022	Central Virginia Electric Cooperative	33.07
62820	05/13/2022	City of Charlottesville	32.48
62913	05/31/2022	City of Charlottesville	29.87
62935	05/31/2022	First Rate Realty	29.45
62806	05/13/2022	Action Lock Safe & Security Co	27.00
62948	05/31/2022	Martin Horn	25.00
62844	05/13/2022	S. Lisa Herndon	24.51
62813	05/13/2022	Avery Buchholz	23.64
62947	05/31/2022	Martin Hardware Company	23.39
62946	05/31/2022	Peter Mantell	21.45
62906	05/31/2022	API Service Center	20.00
62876	05/13/2022	Southern Property	16.32
62837	05/13/2022	First Rate Realty	14.72
62912	05/31/2022	City Electric Supply	12.34
62840	05/13/2022	Gingerich Outdoor Power Specialist	11.99
62978	05/31/2022	Thryv, Inc.	6.59
62968	05/31/2022	Natasha Scott	2.59
62887	05/13/2022	Albina Usmanova	1.00

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> FY 2022 Capital Improvement Program (CIP)  <b>STAFF CONTACT(S)/PREPARER:</b> Peter C. Gorham, P.E., Director of Engineering	<b>AGENDA DATE:</b> June 16, 2022  <b>CONSENT AGENDA:</b>  <b>ACTION:</b> ■ <b>INFORMATION:</b> ■  <b>ATTACHMENTS:</b> YES
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**BACKGROUND:** Monthly CIP Memo including a status report on active CIP Projects, changes to the CIP Schedule, the revised CIP Schedule, and a list of Active Private Development Projects.

**DISCUSSION:**

- Questions about the status of active CIP Projects.
- Schedule changes for five projects.

**BUDGET IMPACT:** None.

**RECOMMENDATIONS:** None.

**BOARD ACTION REQUESTED:** Approval of the Consent Agenda.

**ATTACHMENTS:**

- Monthly CIP Report
- List of CIP schedule changes
- Revised CIP Schedule
- List of Active Private Development Projects

**Albemarle County Service Authority (ACSA)**  
**Capital Improvement Project Report**  
**June 2022**

**a) Risk Assessment Improvements Phase 1 (Account Code 1621):**

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$1,476,050
Appropriated Funds:	\$529,048

**Project Description** - After the attacks of September 11, 2001 industry leaders were tasked by the federal government to prioritize requirements for the protection of the nation's critical infrastructure. The Water Sector, encompassing both water and wastewater, was one of the categories /identified that were expected to remain resilient and continue operating regardless of emergency events. As part of the on-going preparedness program for the ACSA to remain resilient a Vulnerability Assessment was completed in conjunction with our community partners. All our critical assets were analyzed for risks caused by both natural and human-made hazards, using the AWWA Standard J100: *Risk and Resilience Management of Water and Wastewater Systems*. The result was a report to establish mitigation measures to lower risks and increase resiliency. Some mitigation measures have already been completed with others phased over the next two to three fiscal years based upon priority.

**6/7/2022:** The Priority 1 Improvements Project was advertised on June 5, 2022 and bids will be opened on July 1, 2022. JRC has completed their punch list on the pedestrian access gates for the Maintenance Yard Fence Project. The ACSA Maintenance Department will build an anti-climb device for the light pole adjacent to the new security fence.

**b) Energy Audit (Account Code 1625):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Study
Percent Complete:	85%
Contractor:	Unknown
Construction Start:	N/A
Completion:	July 2022 (Study)

Total Budget: \$300,000  
 Appropriated Funds: \$296,000

**Project Description** - This project will consist of a comprehensive energy audit of the Operations Center and all pump stations. It will evaluate current energy consumption and the factors that drive it, as well as, an analysis of utility rate structures to identify potential cost savings. Surveys will be conducted of all systems, including operation and maintenance procedures to determine where energy conservation can be improved.

4/12/2022: A review meeting was held with ACSA staff and Ramboll to complete the EV analysis in preparation for finalization of the decision spreadsheet that will guide our transition to an electric vehicle fleet. Ramboll is completing the work to analyze potential operational changes at pump stations to achieve some energy conservation. We anticipate receiving the draft final report by mid-May 2022.

**c) Avon Street Maintenance Yard (Account Code 1622):**

Consultant: Dewberry Engineers, Inc. (Dewberry)  
 Project Status: Design  
 Percent Complete: 65%  
 Contractor: Undetermined  
 Construction Start: 2023  
 Completion: 2024  
 Total Budget: \$4,315,000  
 Appropriated Funds: \$634,312

**Project Description** - As part of the Operations Center Expansion Study our consultant reviewed all properties owned by the ACSA that could be utilized as we grow. The Avon Street property has long been held as a future location to build additional facilities in a central location, as needed. The current Maintenance Yard at our Operations Center is becoming overcrowded with equipment and materials, causing us to locate some equipment and larger materials in the former ACSA Maintenance Yard at the Crozet Water Treatment Plant, which we lease from RWSA. This project will begin to develop the Avon Street property into a much larger vehicle and materials storage facility, including a training area for our equipment operators.

**6/7/2022:** Dewberry is updating the site plan based upon comments provided by the ACSA Design Team. A title search was ordered for the property at the request of the surveyor to update all encumbrances on the property. Dewberry is working with the County's consultant for the Avon Street Extended Sidewalk Project to create a stormwater connection for the future improvements to

our Avon Street entrance. ACSA staff is negotiating with the neighboring parcel (1745 Avon Street Extended) for a grading easement associated with the development of our site.

**d) HVAC System Upgrade (Account Code 1619):**

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	95%
Contractor:	eTEC Mechanical Corporation (eTEC)
Construction Start:	February 2019
Completion:	May 2022
Total Budget:	\$1,378,000
Appropriated Funds:	\$1,034,297

**Project Description** - During recent years it has become apparent that the HVAC system serving the Administration Building is in need of replacement. This evaluation will review the existing HVAC system and recommend solutions and alternatives. HVAC efficiency and life cycle cost analysis will be performed as part of the evaluation.

**6/7/2022:** The draft Commissioning Report has been received and it is currently under review. As-built control documents have been provided to WRA from eTEC.

**e) Four-Story Backflow Prevention Device Retrofit (Account Code 1765):**

Consultant:	ACSA/Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$348,000
Appropriated Funds:	\$360,295

**Project Description** - In late 2018 ACSA staff became aware of four-story residential structures being constructed without proper backflow prevention devices. Section 8 of the ACSA Rules and Regulations details the ACSA Backflow Prevention Program. This program is in accordance with 12VAC5-590-570 through 12VAC5-590-630 of the Virginia Waterworks Regulations. The Containment Policy in 12VAC5-590-610 outlines the requirement for a backflow prevention (BFP) device on the domestic water service line to high rise structures, defined as four (4) or more stories.

**6/7/2022:** We have received responses from 84 of the original 87 customers identified and plumbing data acquisition has been completed for 63 of them. Approximately 36 customers have executed the access and ownership agreement for the installation of the BFP assemblies. Bids were advertised on May 29, 2022 and they will be opened on June 24, 2022.

**f) Scottsville Phase 4 Water Main Replacement (Account Code 1758):**

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2024
Total Budget:	\$4,369,900
Appropriated Funds:	\$499,410

**Project Description** - This project continues our systematic program to replace undersized and deteriorating asbestos-cement and cast iron water mains throughout our water systems. The design will begin in FY 2019 and carry over into FY 2020. Construction is not anticipated to occur until FY 2022 and FY 2023.

**6/7/2022:** The 90% design documents have been received and are currently under review. The start of the geotechnical borings has been delayed while F&R is trying to work out the pavement repair requirements for any holes that are made in the pavement, as they apply for the VDOT permit.

**g) Crozet Phase 4 Water Main Replacement (Account Code 1756):**

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2023
Total Budget:	\$5,432,700
Appropriated Funds:	\$520,911

**Project Description** - Our Strategic Plan calls for the eventual replacement of all asbestos-cement and PVC (pre-1990) water mains in our system, as they are older and made of a weaker material than the current industry norm. This project continues our systematic program to replace the aging



and undersized asbestos-cement and PVC water mains in the Crozet Water System. This is the fourth of five phases that have been defined to carry out these improvements.

**6/7/2022:** To date 14 of 19 easements required for construction have been acquired.

**h) Ragged Mountain Phase 1 Water Main Replacement (Account Code 1760):**

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2023
Total Budget:	\$696,000
Appropriated Funds:	\$124,975

**Project Description** - This project will replace the oldest active water main remaining in our system, which was part of the water main that served customers out Reservoir Road. This cast iron pipe is over 90 years old and is severely tuberculated, which greatly reduces the flow capacity in this section.

**6/7/2022:** The language of the deed of easement has been finalized as agreed upon between UVAF legal counsel and Mr. Bowling. ACSA staff is still awaiting a response on our latest compensation offer.

**i) Jefferson Village Water Main Replacement (Account Code 1747):**

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	0%
Contractor:	Commonwealth Excavating, Inc. (CEI)
Construction Start:	2022
Completion:	2022
Total Budget:	\$2,451,000
Appropriated Funds:	\$1,614,340

**Project Description** - This project addresses the goal in our Strategic Plan for the eventual replacement of all asbestos-cement water mains in our system. The existing water mains are approximately 49 years old and have reached the end of their useful life. As a former well system that was connected to public water, many of the mains are also undersized.

**6/7/2022:** We have received word from Commonwealth that there is currently a 30 to 40 week delay in acquiring ductile iron pipe (DIP). ACSA staff has confirmed this supply chain disruption appears to be applicable nationwide, with several manufacturers/suppliers giving the same lead time.

**j) Northfields Water Main Replacement (Account Code 1764):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2027
Total Budget:	\$8,130,000
Appropriated Funds:	\$583,497

**Project Description** - This project addresses the goal in our Strategic Plan for the eventual replacement of all asbestos-cement water mains in our system. The existing water mains are approximately 54 years old and have reached the end of their useful life. As a former well system that was connected to public water, most of the mains are also undersized.

**6/7/2022:** ACSA staff is currently working with VDOT to establish the pavement repair requirements for the test holes and geotechnical borings that occur in streets in preparation of the LUP application. Some locations will be shifted out of paved areas to avoid having to mill and overlay a square yard of asphalt for each 4-inch diameter hole.

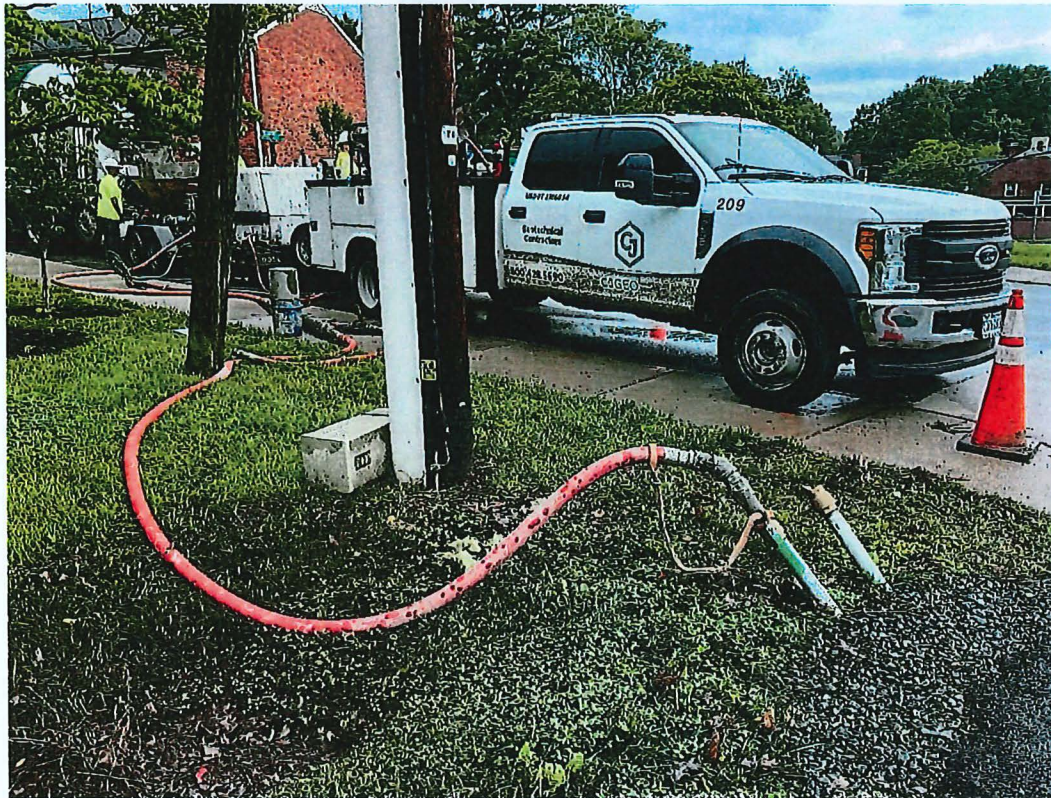
**k) Hessian Hills Water Main Replacement (Account Code 1753):**

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Construction
Percent Complete:	91%
Contractor:	Metra Industries, Inc. (Metra)
Construction Start:	April 2021
Completion:	June 2022
Total Budget:	\$5,070,000
Appropriated Funds:	\$5,107,562

**Project Description** - The water mains in the Hessian Hills area are of a similar age and material as the water mains in the Barterbrook Phase 2 Project, plus they are in the same general area. By extension we are assuming their condition is similar with respect to tuberculation and they are also undersized throughout most of the subdivision. This project

follows our Strategic Plan goal to replace aging and undersized water mains throughout our system. It will also eliminate a small amount of PVC main installed in the early 1980's.

**6/7/2022:** All water utility work has been completed and there is a punch list of items requiring corrective action by Metra. All of the existing large water mains along Barracks Road and Georgetown Road have been abandoned using flowable fill. All old manhole covers have been replaced in advance of final paving. ACSA staff is awaiting a definitive schedule for the remaining pavement restoration.



**I) Briarwood Water Main Replacement (Account Code 1766):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2026
Total Budget:	\$2,650,000
Appropriated Funds:	\$255,338

**Project Description** - Our Strategic Plan calls for the eventual replacement of PVC (pre-1990) water mains in our system, as they are older and made of weaker material than the current industry norm. This project will replace the PVC water mains that have been in service since the early 1980's. The design phase has been initiated and will carry over into FY 2022. Construction is expected to take place in FY 2025 and FY 2026.

5/10/2022: Comments on the 50% design documents have been returned to Ramboll for the preparation of the 90% design.

**m) Barracks West Water Main Replacement (Account Code 1796):**

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$2,728,100
Appropriated Funds:	\$209,335

**Project Description** - This project will replace the undersized and aging cast iron and galvanized water mains that were installed in the late 1960's. These water mains are original to the Old Salem Apartments development, now called Barracks West. This project follows our Strategic Plan goal to replace aging and undersized water mains throughout our system and will provide for an opportunity to improve fire protection to these multi-family apartments.

**6/7/2022: Additional field surveying was required to pick up data that was missed initially. A revised set of 50% design documents has been received and is currently under review. ACSA staff has made contact with the head of Facilities Management for the apartment complex who will be included in the plan review process by the owner. We have also made contact with the owner who was initially unresponsive and with whom we will share project information at the 50% comment stage.**

**n) Broadway Street Water Main Replacement (Account Code 1768):**

Consultant:	Whitman, Requardt & Associates, Inc.
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2023

Completion:	2023
Total Budget:	\$1,043,800
Appropriated Funds:	\$99,820

**Project Description** - This project will replace the ductile iron water main that was installed in the early 1970's and has been found to be in deteriorating condition based on recent excavations. With the redevelopment of the Woolen Mills Factory and Albemarle County's increased attention on economic revitalization of this corridor, replacement of this water main is crucial in transforming this area.

3/8/2022: Comments on the 50% design documents have been received from the City and RWSA concerning the connections to their utilities at the west end of Broadway Street, and these have been forwarded to WRA.

**o) Raintree and Fieldbrook Water Main Replacement (Account Code 1771):**

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	0%
Contractor:	Undetermined
Construction Start:	2027
Completion:	2028
Total Budget:	\$5,947,300
Appropriated Funds:	\$290,887

**Project Description** - Our Strategic Plan calls for the eventual replacement of PVC (pre-1990) water mains in our system, as they are older and made of weaker material than the current industry norm. This project will replace the PVC water mains that have been in service since the 1980's and will eliminate pipe saddles at the water service connections that have been failing due to corrosion.

**6/7/2022:** Field surveying and boundary research are currently underway.

**p) Pantops Drainage Basin Rehabilitation (Account Code 1824):**

Consultant:	O'Brien & Gere Engineers, Inc. (OBG)
Project Status:	Construction
Percent Complete:	95%
Contractor:	Prism Contractors & Engineers, Inc. (Prism) & Linco, Inc. (Linco)
Construction Start:	March 2021
Completion:	June 2022



Total Budget: \$400,700  
 Appropriated Funds: \$515,056

**Project Description** - The wastewater flow metering in 2015 for the update of the RWSA sewer interceptor model has shown the Pantops Area is experiencing peak wet weather flows due to infiltration and inflow (I/I). This project will continue our efforts to maintain the integrity of our wastewater collection system by reducing I/I. The sanitary sewer evaluation survey (SSES) will include the ACSA collection system east of the South Fork Rivanna River and north of I-64, including the Peter Jefferson Place Pump Station. The sanitary sewer evaluation survey (SSES) will consist of manhole inspections, sewer flow monitoring, smoke testing, night flow isolation and measurement, flooded dye testing and CCTV of sewer mains.

**6/7/2022:** Prism is scheduled to return to our area in June 2022 and they've been directed to prioritize completion of the five remaining manholes in the Pantops Drainage Basin before moving on to some of our other rehabilitation projects.

**q) Hollymead Drainage Basin Rehabilitation (Account Code 1825):**

Consultant: O'Brien & Gere Engineers, Inc. (OBG)  
 Project Status: Construction  
 Percent Complete: 24%  
 Contractor: Prism Contractors & Engineers, Inc. (Prism) & Linco, Inc. (Linco)  
 Construction Start: October 2021  
 Completion: October 2022  
 Total Budget: \$454,700  
 Appropriated Funds: \$472,786

**Project Description** - ACSA staff has identified other large drainage basins to be evaluated for infiltration and inflow (I/I) to continue our efforts to maintain the integrity of our wastewater collection system. The study area includes the oldest portions of the Hollymead Subdivision, as well as, the offsite portion of the sewer main that serves the westernmost area of Forest Lakes South. The Forest Lakes Offsite Sewer will be the primary collector for the upcoming extensive Brookhill development and the evaluation of this trunk main will provide an excellent baseline of pipe integrity in advance of the future construction activities around this sewer.

**6/7/2022:** Prism has been directed to resume work on rehabilitation of manholes in the Hollymead Drainage Basin after completing the outstanding Pantops Rehabilitation and FY 2021 Miscellaneous Sewer Rehabilitation work.

**r) Airport Trunk Sewer Upgrade (Account Code 1828):**

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$5,793,800
Appropriated Funds:	\$363,467

**Project Description** - With the continued growth in the Hollymead Town Center area, the existing sewer collector serving the airport and the area west of Route 29 is in need of upgrading to handle full build-out. The existing sewer was originally sized to serve the light industrial zoning designated for that area at the time of construction. The increased density specified in the County Comprehensive Plan for the same drainage basin will exceed the capacity of the existing sewer. A study of the drainage basin was completed in 2016 with the recommendation the sewer main be increased in size by replacing it in place.

**6/7/2022:** ACSA staff has acquired the two easements from the County bringing the number of easements obtained to 7 of 24. ACSA staff continues to negotiate with the owners of 1705 Jumpers Run to arrive at a fair compensation for the impact to their property and narrow the list of suggested trees and shrubs for the restoration of landscaping on their parcel.

**s) Biscuit Run Sewer Replacement (Account Code 1830):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	90%
Contractor:	Linco, Inc. (Linco)
Construction Start:	2022
Completion:	2022
Total Budget:	\$479,600
Appropriated Funds:	\$84,916

**Project Description** - During a routine inspection the ACSA's Maintenance Department discovered an existing gravity main and manhole along an intermittent stream that drains into Biscuit Run had been exposed due to runoff. This project will replace the sewer segment that crosses the stream with ductile iron pipe and will reinforce the stream bank where the sewer manhole is exposed.

**6/7/2022:** Most of the approvals from departments covered by the JPA have been received. ACSA staff is still awaiting the approval of DEQ for the stream disturbance necessary to the project.

**t) FY 2021 Miscellaneous Sewer Rehabilitation (Account Code 1904):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	75%
Contractor:	Prism Contractors & Engineers, Inc. (Prism)
Construction Start:	October 2020
Completion:	June 2022
Total Budget:	\$200,000
Appropriated Funds:	\$200,000

**Project Description** - This project continues our annual “find and fix” program of sanitary sewer rehabilitation to reduce I&I in our system. The ACSA made the decision to split our miscellaneous rehabilitation Contract Documents into separate contracts: one for repair and replacement work, and the other for trenchless pipe rehabilitation plus internal manhole rehabilitation. This contract will be utilized to perform trenchless rehabilitation, including sewer lining, segmental lining, top hats, internal point repairs and manhole rehabilitation that doesn’t require excavation work, to correct problems in our system found with systematic CCTV inspection by ACSA crews. It will also be used to complete rehabilitation recommendations generated from the SSES’s of larger drainage basins.

5/10/2022: The CCTV and cleaning work ahead of the relining proposed under Work Order No. 7 in the Hessian Hills area have been completed. One sewer segment relining in this work order will be replaced with some segmental lining.

**u) FY 2022 Miscellaneous Sewer Repair/Replacement (Account Code 1905):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	Underway
Contractor:	Linco, Inc. (Linco)
Construction Start:	December 2021
Completion:	October 2022
Total Budget:	\$200,000
Appropriated Funds:	\$200,000

**Project Description** - This project continues our annual “find and fix” program of sanitary sewer rehabilitation to reduce I&I in our system. The ACSA made the decision to split our miscellaneous rehabilitation Contract Documents into separate contracts: one for repair and replacement work, and the other for trenchless pipe rehabilitation plus internal manhole rehabilitation. This contract will be utilized to make point repairs and undertake pipe replacement, which requires excavation work, to correct problems in our system found with systematic CCTV inspection by ACSA crews. It will also be used to complete rehabilitation recommendations generated from the SSES’s of larger drainage basins.

**6/7/2022: Work Order No. 1 has been issued for a point repair of an 8-inch gravity sewer main near the Fontaine Research Park.**

**v) FY 2022 Miscellaneous Sewer Rehabilitation (Account Code 1906):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	Underway
Contractor:	Prism Contractors & Engineers, Inc. (Prism)
Construction Start:	October 2021
Completion:	October 2022
Total Budget:	\$200,000
Appropriated Funds:	\$200,000

**Project Description** - This project continues our annual “find and fix” program of sanitary sewer rehabilitation to reduce I&I in our system. The ACSA made the decision to split our miscellaneous rehabilitation Contract Documents into separate contracts: one for repair and replacement work, and the other for trenchless pipe rehabilitation plus internal manhole rehabilitation. This contract will be utilized to perform trenchless rehabilitation, including sewer lining, segmental lining, top hats, internal point repairs and manhole rehabilitation that doesn’t require excavation work, to correct problems in our system found with systematic CCTV inspection by ACSA crews. It will also be used to complete rehabilitation recommendations generated from the SSES’s of larger drainage basins.

**6/7/2022: All of the manholes under Work Order No. 1 have been rehabilitated, leaving only the repair of a protruding lateral remaining to finish this work order.**

**w) Oak Forest Pump Station Abandonment (Account Code 1807):**

Consultant:	O’Brien & Gere Engineers, Inc. (OBG)
Project Status:	Construction
Percent Complete:	95%



Contractor:	Linco, Inc. (Linco)
Construction Start:	July 2020
Completion:	June 2022
Total Budget:	\$1,410,800
Appropriated Funds:	\$2,391,752

**Project Description** - This wastewater pump station was constructed 35 years ago by private development and the original equipment is wearing down. The building and wet well are also undersized and deteriorating. With the development of the Stonefield Area between Route 29 and Commonwealth Drive ACSA staff has identified a sewer main extension project that could eliminate this aging pump station and avoid an expensive upgrade.

**6/7/2022:** Linco is currently working on the punch list of items to correct as they begin to prepare the closeout documents.



**x) Bellair – Liberty Hills Sewer (Account Code 1829):**

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	10%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$2,049,715
Appropriated Funds:	\$380,295

**Project Description** - Over the past several years, there has been an uptick in residents of the Bellair Subdivision seeking to connect to public sanitary sewer service since most residents are currently served by private septic fields. In an effort to gauge community interest for such a project, ACSA staff mailed out a survey to the residents seeking feedback on their interest. Based on initial feedback received, a majority of the property owners are interested in connecting to public sewer if it was made available.

5/10/2022: ACSA staff have reviewed a map of parcels where a low pressure pump system may be required to avoid excessive depths for the new sewer mains. After a preliminary review and discussion ACSA staff have asked Baker to set the maximum depth of sewer at 15 feet and they will use this criteria to determine how many private grinder pumps can be eliminated.

**y) Madison Park Pump Station Upgrade (Account Code 1735):**

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	0%
Contractor:	Anderson Construction, Inc. (ACI)
Construction Start:	2022
Completion:	2022
Total Budget:	\$1,550,000
Appropriated Funds:	\$2,003,831

**Project Description** - This wastewater pump station was constructed 33 years ago by private development and the original equipment is wearing down. In addition the building is undersized creating difficulty in performing routine maintenance and making it impossible to install the control panels necessary to include this pump station in our new SCADA System. A study to evaluate the best option for upgrading this pump station will be performed, followed by design and construction.

**6/7/2022:** The Notice of Award and the Standard Form of Agreement were sent to Anderson Construction, Inc. (ACI) for execution and the preparation of bonds. ACSA staff has received the executed Agreement and the bonds from ACI, which are under review.

**z) Sewer Pump Station Comminutors (Account Code 1827):**

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	0%
Contractor:	East Coast Utility Contractors, Ltd. (ECUC)
Construction Start:	2022
Completion:	2022
Total Budget:	\$731,300
Appropriated Funds:	\$616,193

**Project Description** - Three sewer pump stations: Glenmore, Georgetown Green, and Crozet have all been experiencing higher than normal amounts of solid debris that have been causing undue wear and tear on our pumps, reducing their effective life. They have also been subjected to clogging from the fibrous cloth wipes that are marketed as flushable but do not break down in the sanitary sewer collection system. Maintenance identified the need to install comminutors (aka grinders) in the wet wells or just upstream of them, to eliminate these solids that are adversely impacting our pumps.

5/10/2022: ACSA staff has submitted applications to the DEQ for a Certificate to Construct (CTC) at each pump station. The DEQ has forwarded our application for tax exempt status to the Department of Taxation for final processing.

**aa) Lewis Hill – West Leigh Water Connection (Account Code 1754):**

Consultant:	ACSA Engineering Department
Project Status:	Design
Percent Complete:	95%
Contractor:	ACSA Maintenance Department
Construction Start:	2022
Completion:	2022
Total Budget:	\$80,900
Appropriated Funds:	\$7,125

**Project Description** - The existing PVC water main that serves as the primary connection between West Leigh Subdivision and Lewis Hill Subdivision is at risk for failure due to the encroachment of a nearby

stream. The water main has been taken out of service to avoid a catastrophic failure and the resulting large volume of lost water. This project re-establishes the connection from West Leigh by taking advantage of the recent water main replacement along Sheffield Road with an 8" diameter pipe.

4/12/2022: ACSA staff will be contacting the Lewis Hill HOA in the month of April 2022 to restart discussions about pipe alignment and easement acquisition.

**bb) Huntington Village Water Connection (Account Code 1770):**

Consultant:	ACSA Engineering Department
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$60,700
Appropriated Funds:	\$3,533

Project Description - The existing water main that serves as the only feed into Huntington Village off Old Ivy Road is at risk of failure due to an existing rock retaining wall that was constructed overtop of the water main. This project provides a second water connection into Huntington Village which is comprised of approximately 135 residential customers. It is anticipated all the work will be coordinated in-house by Maintenance Department personnel.

5/10/2022: ACSA staff have completed an internal review of the 50% design documents. During the week of May 9, 2022, our staff engineer will reach out to a couple of companies that specialize in Maintenance of Traffic (MOT) design to request proposals.

**cc) Briarwood Pump Station Generator (Account Code 1767):**

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	50%
Contractor:	ACSA Maintenance Department
Construction Start:	October 2021
Completion:	August 2022
Total Budget:	\$54,100
Appropriated Funds:	\$54,100



**Project Description** - This wastewater pump station was constructed in 1995 by private development and didn't include a permanent generator. In an effort to reduce risk and increase resiliency at the station, Maintenance identified the need to install a generator at this site to avoid deployment of one of our portable generators.

**6/7/2022:** The shipping date for the new standby generator has been pushed back again to July 19, 2022.

**dd) Exclusion Meters Replacement (Account Code 1759):**

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	26%
Contractor:	ACSA Maintenance Department
Construction Start:	September 2019
Completion:	2024
Total Budget:	\$1,237,500
Appropriated Funds:	\$247,500

**Project Description** - In the mid 1990's with the development of Glenmore, many new customers installed irrigation systems for their properties and wanted to have their sewer bills reduced by the amount of water that was diverted to irrigate their properties. Private meters were installed behind their ACSA meter to record this volume and it was "excluded" from the calculation of their sewer charges and these became known as exclusion meters. On January 1, 2006 the ACSA Rules and Regulations were modified to no longer allow exclusion meters and required that all future irrigation meters would be tapped separately off our water mains, to be owned and controlled by the ACSA. At that time the existing exclusion meters were grandfathered and allowed to stay in place unless the irrigation system was voluntarily abandoned. This project is a multi-year replacement program by our in-house CIP Crew to install dedicated, ACSA owned irrigation meters that will eliminate all remaining exclusion meters in our system.

**6/7/2022:** An additional group of seven more malfunctioning exclusion meters were identified and six of them have been converted to auxiliary irrigation meters. There are currently 370 exclusion meters remaining in our system.

**ee) Sewer Force Main Condition Assessment (Account Code 1826):**

Consultant:	ACSA Engineering Department
Project Status:	Study
Percent Complete:	100%

Contractor:	Pure Technologies (Pure)
Construction Start:	N/A
Completion:	March 2020 (Study)
Total Budget:	\$149,468
Appropriated Funds:	\$228,745

**Project Description** - This project will address the ACSA's Strategic Plan to complete condition assessments on all sanitary sewer force mains at pump stations within the ACSA wastewater system. This project will utilize SmartBall and transient pressure monitoring technology to determine any problem areas that require correction or further detailed investigation.

5/10/2022: ACSA staff have decided to avoid potential capacity issues along the new gravity sewer route through the Woodbrook Subdivision and keep the force main at full length. ACSA staff is preparing a Scope of Services for Ramboll for the design of the partial replacement of the Woodbrook Pump Station Force Main.

**ff) SCADA System Phase 3 (Account Code 1605):**

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$943,115
Appropriated Funds:	\$324,472

**Project Description** - The ACSA Utility System has over 40 critical assets that include water and wastewater pump stations, water storage tanks and master PRV stations. They are considered critical because malfunctions or failures at any of the assets could have a drastic effect on our utility system and our customers. These assets are currently monitored by site visits of assigned Maintenance personnel. This project will create a Supervisory Control and Data Acquisition (SCADA) System that will allow ACSA employees to remotely monitor the operations of these critical assets from the main office building. It will also allow personnel to change the operational settings of some pump stations from the main office building. Using alarms, we will be able to more quickly evaluate problems and prevent some failures before they happen. The project will be completed in three phases over a three year period.

**6/7/2022:** The RFP advertising period has closed and the pre-qualification phase has been completed. ACSA staff is preparing to schedule the competitive negotiation stage.

PCG/dmg  
060806CIPMonthly060722

Albemarle County Service Authority (ACSA)

CIP Schedule Revisions  
June 2022

1. The construction phase of the Pantops Drainage Basin Rehabilitation Project has been extended to June 2022.
2. The design phase of the Airport Trunk Sewer Upgrade Project has been extended to September 2022.
3. The construction phase of the FY 2022 Miscellaneous Sewer Repair and Replacement Project has been extended to October 2022.
4. The construction phase of the FY 2022 Miscellaneous Sewer Rehabilitation Project has been extended to October 2022.
5. The construction phase of the Briarwood Pump Station Generator Project has been extended to August 2022.

060806CIPRevisions060722



Capital Improvement Program					2022	2023	2021	2021	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2023	2023	2023	2023	2023	2023	
Proposed Project Schedule Worksheet: June 2022		Acct. #	Percent Growth	PM	Forecast	Forecast	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Risk Assessment Improvements		1621	0%	AM	117,000																									
Data Management and Dashboarding			100%			20,000																								
Billing System Analysis and Replacement			100%			50,000																								
ESRI Utility Network Implementation			100%			50,000																								
Cityworks Operational Insights Impelmentation			100%			45,000																								
Energy Audit		1625	0%	AM		40,000																								
Avon Street Maintenance Yard		1622	100%	AM	60,000	3,750,000																								
ACSA Facilities - Security System Upgrade			100%			158,000																								
AMI Implementation		1620	15%	PG	5,000,000																									
Four-Story Backflow Prevention Assembly Retrofit		1765	0%	AM																										
Scottsville Phase 4 Water Main Replacement		1758	0%	AM		100,000																								
Crozet Phase 4 Water Main Replacement		1756	0%	JL		1,412,050																								
Ragged Mountain Phase 1 Water Main Replacement		1760	0%	JL		417,000																								
Jefferson Village Water Main Replacement		1747	0%	RN	262,300																									
Northfields Water Main Replacement		1764	0%	RN																										
Hessian Hills Water Main Replacement		1753	0%	JL	3,456,675																									
Briarwood Water Main Replacement		1766	0%	JW																										
Barracks West Water Main Replacement		1796	0%	JW	452,500																									
Townwood Water Main Replacement			0%			170,000																								
Broadway Street Water Main Replacement		1768	0%	RN		650,000																								
Raintree and Fieldbrook PVC Water Main Replacement		1771	0%	JL	432,300																									
Pantops Drainage Basin Rehabilitation		1824	0%	RN																										
Hollymead Drainage Basin Rehabilitation		1825	0%	RN																										
Airport Trunk Sewer Upgrade		1828	100%	JL		115,000																								
Northfields Phase 5 Sewer			100%	RN		70,000																								
Biscuit Run Sewer Replacement		1830	0%	RN	206,000	206,000																								
FY 2021 Miscellaneous Sewer Rehabilitation		1904	0%	JL																										
FY 2022 Miscellaneous Sewer Repair/Replacement		1905	0%	JL	200,000																									
FY 2022 Miscellaneous Sewer Rehabilitation		1906	0%	JL	200,000																									
FY 2023 Miscellaneous Sewer Repair/Replacement		1905	0%	JL		200,000																								
FY 2023 Miscellaneous Sewer Rehabilitation		1906	0%	JL		200,000																								
Oak Forest Pump Station Abandonment		1807	0%	JL																										
Bellair - Liberty Hills Sewer		1829	100%	JL	80,515																									
Madison Office Park Pump Station Upgrade		1735	0%	JL	123,875	425,000																								
Sewer Pump Station Comminutors		1827	0%	RN	291,300																									
Lewis Hill - West Leigh Water Connection		1754	0%	RN																										
Parkview Drive Water Connection			0%																											
Huntington Village Water Connection		1770	0%	RN																										
Briarwood Pump Station Generator		1767	0%	AM																										
Exclusion Meters Replacement		1759	0%	JL																										
Pipe Saddles Replacement		1763	0%																											
SCADA System Phase 3		1605	100%	AM	186,800																									
Developer Participation			100%		100,000	100,000																								
Total Capital Projects to be appropriated in the Fiscal Year					\$ 11,169,265	\$ 8,178,050																								

In house construction

Engineering

Construction



**Albemarle County Service Authority (ACSA)**  
**Active Private Development Projects**  
**June 2022**

- a. Airport Road Sheetz (Rio): Water main extension to serve a Sheetz, located at the corner of Airport Road and Route 29.
- b. Albemarle Business Campus – Block 5 (Scottsville): Water and sewer main extension to serve a storage facility and retail spaces between Old Lynchburg Road and Wahoo Way.
- c. Ashcroft Phase 2 Sections 6 & 7 (Rivanna): Water main extension to serve 14 residences. The project is located at the upper end of Summit Ridge Trail.
- d. **Avon Street Extended Sidewalk Project (Scottsville)**: **Replacement of approximately 600 LF of water main to facilitate the installation of a sidewalk and associated storm water infrastructure. This project is located along Avon Street Extended, between Stoney Creek Drive and Arden Drive.**
- e. Beaver Creek – Medical Office Building (Jack Jouett): Water main extension to serve the proposed medical office building to be located on the 2246 and 2248 Ivy Road parcel.
- f. Berkmar Drive Apartments (Rio): Water and sewer main extensions to serve 10 apartment buildings, totaling 261 units. The project is located along Berkmar Drive, south of the Forest Springs Mobile Home Park.
- g. Boys and Girls Club – Drivers Ed Site (Jack Jouett): Water main extension to serve a new Boys and Girls Club. The project is located south east of Jack Jouett Middle School.
- h. Brookhill Blocks 9-11 (Rivanna): Water and sewer main extension to serve 85 single family homes in the Brookhill subdivision, located east of Stella Lane between Ashwood Boulevard and Archer Avenue.
- i. Farmington Country Club – Phase 1 (Jack Jouett): Water main extension to provide fire protection to the future Farmington Country Club expansion. An existing cottage will be replaced with 3 new cottages, totaling 12 units. This project is located at the intersection of Farmington Drive and Tennis Road.
- j. Flow Automotive – 1300 Richmond Road (Rivanna): Water main extension to provide water service and fire protection to a new/renovated car dealership. This project is located along Richmond Road, across from People Place.
- k. Galaxie Farm Subdivision (Scottsville): Water and sewer main extension to serve 65 residential units. This project is located along Scottsville Road, south of Mountain View Elementary.

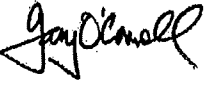
- l. Georgetown Hydraulic (Jack Jouett): Water main extension to serve a commercial office building at the intersection of Georgetown Road and Hydraulic Road.
- m. Glenbrook at Foothills Phase 3 (White Hall): Water and sewer main extensions to serve 120 residential units between the Parkside Village and Glenbrook at Foothills subdivisions along Park Ridge Drive.
- n. Ivy Road Sidewalk Project (Jack Jouett): Replacement of 1,000 LF of water main to facilitate the installation of a sidewalk and associated storm water infrastructure. This project is located along Ivy Road, between Still fired Lane and Colonnade Drive.
- o. Polo Grounds Road Improvements – Phase 2 (Rivanna): Water main extension along sections of Polo Grounds Road to serve eastern blocks of the Brookhill Subdivision. This project is located east of Route 29, along Polo Grounds Road.
- p. Proffit Road Townhomes South (Rivanna): Water and sewer main extension to serve 31 town home units. This project is located along Proffit Road, south of Martha Jefferson Outpatient Care Center.
- q. **PVCC - Advanced Technical Training Center (Scottsville): Water main extension to serve new building on PVCC campus off College Drive.**
- r. Regents School of Charlottesville (Samuel Miller): Water and sewer main extension to serve a private school, grades K-12. The site is located east of Trinity Presbyterian Church, along Reservoir Road.
- s. Rivanna Station – Nicholson Building Addition (Rivanna): Water main extension to serve an expansion of the Nicholson Building and a parking garage at NGIC, located east Route 29 and south of Boulders Road.
- t. Rivanna Village Phase 2 (Scottsville): Water and sewer main extensions to serve 178 residential units. This project is located east of the Glenmore Ground Storage Tank and Rivanna Village Phase 1.
- u. Southwood Phase 1 – Blocks 9-11 (Scottsville): Water and sewer main extensions to serve 70 single family units and 16 condominium units. This project is located west of Horizon Road and south of Hickory Street.
- v. Southwood Redevelopment - Village 1 (Scottsville): Water and sewer main extensions to serve 49 residential units and future commercial blocks. This project is located east of Old Lynchburg Road and south of I-64.
- w. Stonefield Block D1 (Jack Jouett): Water main extension to serve a 220 unit apartment building at the intersection of Inglewood Drive and Bond Street.
- x. White Gables Major Amendment (Samuel Miller): Water main enxtension to serve three multi-family condominium buildings, with 30 units each. This site

is located to the east of the existing White Gables neighborhood along Old Ivy Road.

PCG/pg

0506 Active Private Development Projects 060622

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Rivanna Water & Sewer Authority (RWSA) Monthly Update  <b>STAFF CONTACT(S)/PREPARER:</b> Gary O'Connell, Executive Director 	<b>AGENDA DATE:</b> June 16, 2022  <b>CONSENT AGENDA:</b> Informational  <b>ATTACHMENTS:</b> Yes
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**BACKGROUND:** This report continues the monthly updates on the Rivanna Water & Sewer Authority (RWSA) projects and Board meetings. Below are some updates on RWSA major projects and issues, including updates from the May 24<sup>th</sup> RWSA Board Meeting and other communications.

RWSA Board Meeting and other Updates and Approvals at the May 24<sup>th</sup> Board Meeting:

- **Public Hearing and Budget Approval:**

No one attend the public hearings. The RWSA Budget, Rates and CIP were approved by the Board. These RWSA rates are a part of the ACSA proposed budget.

- **Urban Finished Water Master Plan:**

Final completion of this plan has been incorporated into RWSA's CIP planning and projects. There's a 50-year long term "holistic" plan to look at the engineering condition of the urban water system. It will guide RWSA in future CIP planning. A major finding was there are gaps in the current urban water system with a lack of hydraulic connectivity. The proposed central water line will remedy this gap, connecting the Western Observatory Water Treatment Plant to the rest of the urban system tanks, such that the full 10 MGD capacity at the Observatory Plant can be fully utilized. The piping network now restricts this movement of water in the system. Near terms (next 5 years) recommended projects include: Airport Pump Station, Berkmar-Airport Road waterline, and a second South Rivanna River crossing. Water system benefits of these projects include: closes gap across the urban water service area, addresses operational inefficiencies, improves system flexibility and redundancy, moves more water across the system and enhances hydraulic connectivity.

**RWSA Major Capital Project Updates:**

- **South Rivanna and Observatory Water Treatment Plant Renovations**

Design Engineer:	Short Elliot Hendrickson, Inc. (SEH)
Construction Contractor:	English Construction Company
Construction Start:	May 2020
Percent Completion:	59%
Completion Date:	May 2023
Base Construction Contract:	\$37,223,349.89



## ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

Approved Capital Budget: \$43,000,000

Current Status:

Work continues on the South Rivanna Water Treatment Plant, the Administration Building, and improvements at the Raw Water Pump Station. Two new filters have been completed. Work at the Observatory Water Treatment Plant includes the new Chemical Storage Building, sedimentation basin improvements, a large retaining wall, and excavation for the GAC expansion.

History:

The Observatory project will consider the design and costs for upgrading the plant systems to achieve a consistent 7 MGD plant capacity, as well as consider the costs involved with upgrading the plant to 10 or 12 MGD capacity. Much of the Observatory Water Treatment Plant is original to the 1953 construction.

At the South Rivanna Water Treatment Plant significant needs were identified and assembled into a single project. The projects include: expansion of the coagulant storage facilities; installation of additional filters to meet firm capacity needs; the addition of a second variable frequency drive at the Raw Water Pump Station; the relocation of the electrical gear from a sub-terrain location at the Sludge Pumping Station; a new Administration building onsite for additional office, lab, control room and storage space; improvements to storm sewers to accept allowable WTP discharges; and the construction of a new metal building to cover the existing liquid lime feed piping and tanks. The scope of this project will not increase plant treatment capacity, which is at 12 MGD.

- **Crozet Flow Equalization Tank**

Design Engineer:	Schnabel Engineering
Construction Start:	September 2020
Percent Complete:	94%
Expected Completion Date:	June 2022
Base Contract	\$4,478,216.31
Total Capital Project Budget:	\$5,400,000

Current Status:

Final construction of the tank continues with only completion of the tank dome, additional leak testing, and painting remaining. The new pumps are set on bases. Final SCADA and control work is in progress.

History:

A 2016 update to the 2006 wastewater model was completed which evaluated the I&I (Infiltration and Inflow) reduction goals previously established and future capital project

## AGENDA ITEM EXECUTIVE SUMMARY

needs. Based on the results of that study, it was determined that the Crozet Interceptor system and namely the existing Crozet Pump Stations (1 through 4) have adequate capacity to handle the 2015 peak wet weather flow from the Crozet service area during a two-year storm. However, as the projected growth in the Crozet service area occurs, peak wet weather flows in the area, under the storm conditions established in the updated model, will begin to exceed the firm capacities of the pump stations by 2025.

A flow equalization tank is under construction which would also provide a significant benefit to the maintenance of the Crozet Pumping Station system which currently lacks system storage necessary to allow adequate time to perform repairs on the pumps and the associated force mains while the system is down.

- **Airport Road Water Pump Station and Piping**

Contractor:	Anderson Construction
Bidding:	
Construction Start:	December 2021
Percent Complete:	5%
Completion Date:	December 2023
Base Contract:	\$8,520,312.50
Budget:	\$10,000,000

**Current Status:**

Work has begun at the Kohl's site. Rock has been encountered.

**History:**

The Route 29 Pipeline and Pump Station Master Plan was developed in 2007 and originally envisioned as a multi-faceted project that reliably connected the North and South Rivanna pressure bands; reduced excessive operating pressures, and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan update was completed in June of 2018 to reflect the changes in the system and demands since 2007.

- **Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Raw Water Pump Station**

Design Engineer:	Michael Baker International (Baker)
Project Start:	August 2018
Project Status:	Design (11%) and Easement Acquisition in Progress
Construction Start:	2025
Completion:	2028
Current Project Estimate:	\$29,375,000

## ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

Preparation of engineering plans and specifications is underway. Topographic survey work to the west of the proposed pump station is nearing completion, with further survey efforts to the east of the site underway. A hydraulic evaluation of the future South Fork Rivanna Reservoir (SRR) to Ragged Mountain Reservoir (RMR) transfer system is also underway, which will further inform design of the RMR Pump Station and associated yard piping. Fifty-percent plans for the water line have been submitted for review. Easement negotiations with one private owner, UVA, and the UVA Foundation continue.

History:

Raw water is currently transferred from the Ragged Mountain Reservoir (RMR) to the Observatory Water Treatment Plant by way of two 18-inch cast iron raw water lines, which have been in service for more than 110 and 70 years, respectively. The proposed water line will be able to reliably transfer water to the expanded Observatory Plant, which, upon completion, will have the capacity to treat 10 million gallons per day (mgd). The new single water line will be constructed of 36-inch ductile iron and will be approximately 14,000 feet in length.

The RMR to Observatory WTP raw water pump station is planned to replace the existing Stadium Road and Royal Pump Stations, which have exceeded their design lives or will require significant upgrades with the Observatory WTP expansion. The pump station will pump up to 10 million gallons per day (mgd) of raw water to the Observatory WTP. Integration of the new pump station with the planned South Rivanna Reservoir (SRR) to RMR Pipeline is being planned in the interest of improved operational and cost efficiencies and emergency redundancy. An integrated pump station would also include the capacity to transfer up to 16 mgd of raw water from RMR back to the SRR WTP.

- **South Rivanna Reservoir to Ragged Mountain Reservoir Raw Water Line-Birdwood to Old Garth Road**

Design Engineer:	Kimley-Horn
Project Start:	June 2021
Project Status:	90% Design
Construction Start:	Summer 2022
Completion:	2023
Current Project Estimate:	\$1,980,000

Current Status:

Preparation of engineering plans and specifications is substantially complete for a 0.25-mile section of the 36" raw water pipe from Birdwood to Old Garth Road. One remaining easement is under negotiation with the UVA Foundation (UVAF) for this phase of the project. Design documents have been submitted to local regulatory authorities for review. Finalization of permits, design, and bidding are currently on hold awaiting the final UVAF easement.

## AGENDA ITEM EXECUTIVE SUMMARY

History:

This project is the continuation of the SRR to RMR 36" raw water pipeline built on the Birdwood Golf Course. Design efforts were authorized in June 2021 with construction anticipated in summer 2022.

- **Beaver Creek Dam and Pump Station and Piping Improvements**

Design Engineer:	Schnabel Engineering (Dam)
Design Engineer:	Hazen and Sawyer (Pump Station)
Project Start:	February 2018
Project Status:	75% NRCS Planning Process
Construction Start:	2024
Completion:	2026
Budget:	\$30,870,000

Current Status:

RWSA staff is moving forward with development of a Joint Permit Application and supporting documents for submission to DEQ in June. Remaining NRCS requirements, including review and approval of the planning study, are scheduled for completion by December 2022. An application for design and construction funding from NRCS will be submitted in 2022.

History:

RWSA operates the Beaver Creek dam and reservoir as the sole raw water supply for the Crozet area. In 2011, an analysis of the Dam Breach inundation areas and changes to Virginia Department of Conservation and Recreation (DCR) *Impounding Structures Regulations* prompted a change in hazard classification of the dam from significant to high hazard. This change in hazard classification requires that the capacity of the spillway be increased, and the dam be replaced. This CIP project includes investigation, preliminary design, public outreach, permitting, easement acquisition, final design, and construction of the anticipated modifications. Work for this project includes a new relocated raw water pump station and intake. A federal grant totaling \$341,000 was secured from the National Rural Conservation Service (NRCS) to cover the costs of an Environmental Assessment for the dam modifications. Staff will continue to pursue federal funding for later phases of the project to cover a portion (70%) of final design and construction costs.

- **South Fork Rivanna River Crossing**

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2020
Project Status:	40% Design
Construction Start:	January 2023
Completion:	April 2024
Budget:	\$5,850,000

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

### Current Status:

Baker has recommended a water line route that will cross the river parallel to the west side of the Berkmar Bridge and follow Rio Mills Road until it intersects the new 24" water line in Route 29. Proceeding with the 50% design documents.

### History:

RWSA has previously identified through master planning that a 24-inch water main will be needed from the South Rivanna Water Treatment Plant (SRWTP) to Hollymead Town Center to meet future water demands. Two segments of this water main were constructed as part of the VDOT Rt. 29 Solutions projects, including approximately 10,000 LF of 24-inch water main along Rt. 29 and 600 LF of 24-inch water main along the new Berkmar Drive Extension, behind the Kohl's department store. To complete the connection between the SRWTP and the new 24-inch water main in Rt. 29, there is a need to construct a new river crossing at the South Fork Rivanna River. Acquisition of right-of-way will be required at the river crossing.

- **South Fork Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way**

Design Engineer:	Michael Baker International (Baker)
Project Start:	October 2017
Project Status:	Easement Acquisition Underway
Completion Date:	2022
Total Capital Project Budget:	\$2,295,000

### Current Status:

Progress continues in RWSA efforts to acquire 8 miles of easements and agreements (with VDOT) for this 36" water line. Discussions continue on remaining easements with the UVA Foundation and one final private property owner.

### History:

The approved 50-year Community Water Supply Plan includes the future construction of a raw water line from the South Fork Rivanna Reservoir to the Ragged Mountain Reservoir. This water line will replace the existing Upper Sugar Hollow Pipeline along an alternative alignment to increase raw water transfer capacity in the Urban Water System. This project includes a routing study, preliminary design, and preparation of easement documents, as well as acquisition of water line easements along the approved route.

- **Upper Schenks Branch Interceptor, Phase II**

Design Engineer:	Frazier Engineering, P.A.
Project Start:	July 2021
Project Status:	Design
Construction Start:	TBD
Completion:	TBD



## AGENDA ITEM EXECUTIVE SUMMARY

Current Project Estimate: \$4,725,000

Current Status

A revised draft alignment of the sewer line being installed within easements and out of the roadway have been completed and are being shared with the City of Charlottesville and Albemarle County for review.

- **SRR to RMR Pipeline – Pretreatment Pilot Study**

Design Engineer:	SEH
Project Start:	August 2020
Project Status:	100% (Phase 1) 60% (Phase 2)
Completion:	July 2022
Budget:	\$22,969 (Phase 1) \$98,629 (Phase 2)

Current Status:

Phase 2 of the study continues and includes detailed reservoir water quality modeling performed by DiNatale Water Consultants. Development of a more detailed reservoir model is underway.

History:

As part of the SRR to RMR Pipeline project, the impact of sending raw water from the SRR to RMR has been previously studied and a significant amount of pretreatment was initially identified as being needed to avoid reducing the quality of the raw water contained within the RMR. With the pipeline easement acquisition process well underway and additional information now available associated with the proposed timing of this overall project based on water demand projections, the intent of this project is to update the pretreatment needs anticipated.

The study is anticipated to be completed in four phases: 1. Analysis and Correlation of Existing Water Quality and Seasonal Weather Data; 2. Enhanced Water Quality Sampling; 3. Pretreatment Piloting; 4. Level Setting for the Final Pretreatment Solution. Phase 1 commenced in January 2021 and was completed in July 2021. Phase 2 began in June 2021.

- **Central Water Line Project – Routing Study**

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	5% Design
Construction Start:	2024
Completion:	2028
Budget:	\$31,000,000

## ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

Survey and utility designation work has begun and will continue along the proposed 5-mile alignment through May 2022. RWSA and City staff attended the Neighborhood Association meetings to present information on this project, and other presentations have been held. From these meetings a number of suggested alternative routes are being evaluated. City Council will take up the project at their June meeting, as will the ACSA Board.

History:

The hydraulic connectivity in the Urban System is less than desired, creating operational challenges and reduced system flexibility and redundancy. Recent efforts and modeling for the Urban Finished Water Infrastructure Master Plan have determined that a central water line corridor through the City is the best option to hydraulically connect the Observatory Water Treatment Plant to the Urban service area.

- **Security Enhancements**

Construction Contractor:	Security 101
Construction Start:	March 2020
Percent Complete:	99% (WA 2 & 3) 80% (WA 4) 0% (WA 5)
Based Construction Contract + Change Orders to Date = Current Value:	\$718,428.00 (WA1) + \$91,130.32 (WA2) +\$128,166.69 (WA3) + \$189,698.95 (WA4) = \$1,127,423.96 (total)
Completion:	December (WA 2 & 3) February 2022 (WA 4)
Budget:	\$2,810,000

Current Status:

Access control system installation has been completed on all exterior doors at MCAWRRF, as well as all WTP motorized gates. The Card Access System is in use at the Administration, Engineering, and Maintenance Buildings at MCAWRRF, as well as at various process buildings across the site and at the WTP gates. The only task that remains is some door and lock hardware improvements under WA #2, which will enhance the functionality of the card access system. Finally, WA #4 includes security conduit at the South Rivanna and Observatory WTPs that was not included in the Improvements Project. This work began on November 2, 2021, with the majority of the work at South Rivanna WTP now complete, except for the Filter Building, which is currently ongoing heavy construction work as part of the Improvements Project. Security 101's subcontractor has largely completed Observatory. In WA 5 the remainder of the facilities will have card access installations.

## AGENDA ITEM EXECUTIVE SUMMARY

History:

As required by the Federal Bioterrorism Act of 2002 and the American Water Infrastructure Act of 2018, water utilities must conduct Vulnerability Assessments and have Emergency Response Plans. RWSA recently completed an updated Risk Assessment of its water system in collaboration with the Albemarle County Service Authority (ACSA), City of Charlottesville (City), and University of Virginia (UVA). A number of security improvements that could be applied to both the water and wastewater systems were identified. The purpose of this project will be to install security improvements at RWSA facilities including treatment plants, including additional security gate and fencing components, vehicle bollards, facility signage, camera system enhancements, additional security lighting, intrusion detection systems, door and window hardening, installation of industrial strength locks, communication technology and cable hardening, and an enhanced access control program.

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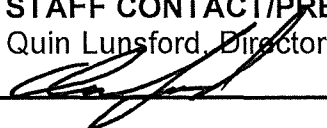
# ACSA Board Future Policy Issues Agendas 2022-2023

July '22	Aug. '22	Sept. '22	Oct. '22	Nov. '22	Dec. '22	Jan. '23	Feb. '23	March '23	Pending Issues
July 21st Recognitions	August 18th Recognitions	September 15th Recognitions	October 20th Recognitions	November 17th Recognitions	December 15th Recognitions	January 19th Recognitions	February 16th Recognitions	March 16th Recognitions	Water Supply Plan Project Status Reports Water Treatment Plants RWSA CIP Central Water Line Northern Water System Agreement  Annual Water Quality Reports (May)
Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	
Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorization	Capital Project Authorizations	Capital Project Authorizations	
Strategic Plan Update	Operational Presentation-ARC GIS; Satellite Imaging	Resolution-Imagine a Day Without Water	Operational Presentation - Training and BizLibrary	Operational Presentation - Exclusion Meter Program - Maintenance	Operational Presentation - 4 Story Backflow	Operational Presentation	Operational Presentation	Operational Presentation	
City Works-Online Customer Request (Demo) and Work Order Process	Year-End Appropriations; reserves	Report on status of customer accounts in arrears	Energy Audit Report	Annual Financial Report	Budget Guidelines and Schedule for FY '24 Budget	Board Organizational Meeting	PAFR (Popular Annual Financial Report) Presentation	Proposed CIP Presentation	Water Audit and Energy Audit
Service Recognitions for Kenny Barrow, Mike Lynn, Jay Thomas and Mark Clinedinst	Service Recognition for Pete Gorham	Water Audit Report	AMI Update	Strategic Plan Process 2023-2025	Annual Investment Report	ACSA Annual Report 2021	Security Assessment Updates; IT Report	AMI Update	Strategic Plan 2020-2022 Updates January and July New Strategic Plan Process 2023-2025
AMI Video - Status on AMI Project	Investment Policy - Socially Responsible Investing				Best Practices Review Panel	Strategic Plan Updated 2020-2022 Final Report	New Strategic Plan Draft 2023-2025		Annual Water Conservation Report - January
Dunlora Farm Offsite Sewer Agreement (tentative)	Customer Survey					Water Supply Plan and Treatment Projects Updates			National Drinking Water Week-April Imagine a Day Without Water - September
						Annual Water Conservation Report (Consent Agenda)			AMI Updates - Customer Portal Video
									Federal/State Water Quality Regulations
									Emergency Preparedness - Regional Exercise
									Annual Investments Report December
									Operational Presentations
									ACSA Customer Communications
									Avon Satellite Operations Center
									Federal Infrastructure Grant Funds
									Data Management and Management Dashboards
			Tentative - Strategic Plan Process	Executive Director Mid Year Performance Review				Executive Director Annual Review	

6/16/2022

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Advanced Metering Infrastructure (AMI) Monthly Update  <b>STAFF CONTACT/PREPARER:</b> Quin Lunsford, Director of Finance 	<b>AGENDA DATE:</b> June 16, 2022  <b>ACTION:</b> Informational  <b>ATTACHMENTS:</b> Yes
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**BACKGROUND:** The ACSA Board authorized staff at its October 2019 meeting to execute agreements related to the AMI project. Monthly status updates are provided below:

**DISCUSSION:** Authority staff continues to collaborate closely with the selected vendor (Core & Main/Sensus) and the project management consultant (Esource). Notable accomplishments since the last update include:

- Installation of all but one the remaining collection antennas has been completed. These installations enable the ACSA to communicate with our meters throughout the ACSA's service area. Locations were selected through a comprehensive propagation study to leverage ACSA/RWSA assets (mainly water tanks) and other existing structures to provide redundant coverage for most of our system. The ACSA, with support from Core & Main/Esource continue to evaluate options/alternatives related to one of the antenna sites. This site, originally proposed near the Observatory water tank, has proved difficult as rock was encountered where the structure was to be installed.
- We continue to monitor meters that have already been deployed and have been able to notify customers that may unknowingly have a water leak or other issue. One notable example was at one of the high schools in the County. The ACSA received a "continuous consumption alarm on May 18<sup>th</sup> indicating a possible issue. This notification (illustrated on the attachment) reflected approximately 2,000 gallons of water being used per hour beginning the evening of May 16<sup>th</sup>. Our team contacted the school the morning of the May 18<sup>th</sup> and an issue was identified in the woman's restroom at the football complex and by 11:00 a.m. that same day, school facility personnel were able to resolve. Quick notification of this leak saved an estimated 672,000 gallons of water and subsequent return to the wastewater system.
- Supply chain disruptions continue to impact meter manufacturers and significant improvement in delivery of outstanding meters is not expected until at least October of 2022. Upon improvement of meter/component availability, the ACSA is poised and prepared for final deployment of the remaining 20,000 meters.

**BUDGET IMPACT:** Informational only.

**RECOMMENDATIONS:** None

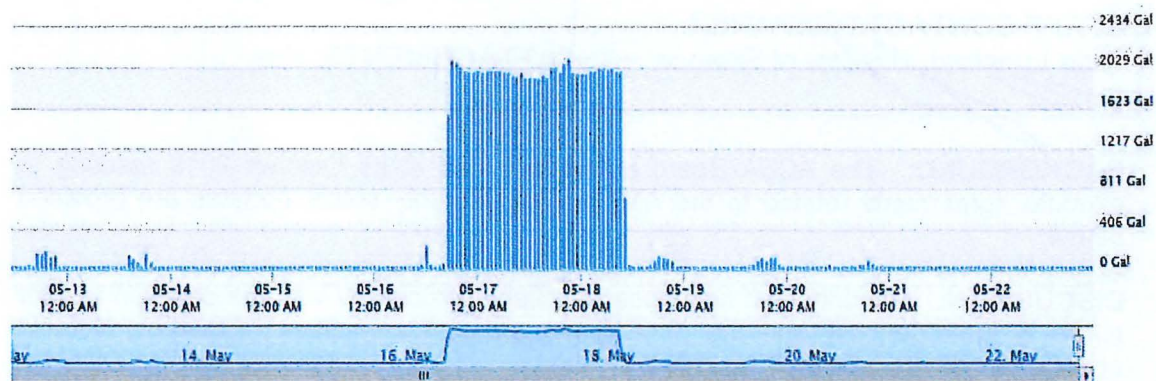
**BOARD ACTION REQUESTED:** None; informational item only.

**ATTACHMENTS:** N/A



## ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY



## **SETTLEMENT AGREEMENT**

This AGREEMENT is made effective as of the date of the last signature hereto (the "Effective Date"), by and between the Albemarle County Service Authority, a Virginia Public Service Authority (the "ACSA") and Metra Industries, Inc., a New Jersey corporation ("Metra"), each a "Party" and collectively, the "Parties."

## **REASONS FOR AGREEMENT**

On February 19, 2021, the ACSA awarded Metra the contract (the "Contract") for the Hessian Hills Water Main Replacement Project, ACSA Project Number 2018-08 (the "Project"). Disputes have arisen among the Parties regarding payment and performance under the Contract. The Parties wish to resolve all disputes that may exist among them relating to the Contract and the Project.

### **I. TERMS**

For and in consideration of the mutual promises and commitments specified herein, the Parties agree as follows:

1. The ACSA agrees to pay Metra \$400,000.00 (Four-Hundred Thousand Dollars) (the "Settlement Amount") within thirty (30) days of Metra's execution and delivery to the ACSA of a final lien waiver warranting that all laborers, subcontractors, and suppliers employed by Metra in connection with the Project have been paid in full and agreeing to defend, indemnify and hold the ACSA harmless from any and all claims from any such laborers, subcontractors, and suppliers. The Settlement Amount shall be comprised of (i) a final payment in the amount of \$185,223.36 (One-Hundred and Eighty-Five Thousand Two Hundred and Twenty-Three and 36/100 Dollars) and (ii) retainage in the amount of \$214,776.64 (Two-Hundred Fourteen Thousand Seven Hundred and Seventy-Six and 64/100 Dollars). The ACSA shall also pay in the ordinary course Metra's Payment Application No. 14 in the amount of \$42,429.85 (Forty-Two Thousand Four Hundred and Twenty-Nine and 85/100 Dollars).

2. The Parties agree that the Contract has been terminated for their mutual convenience and that neither Party owes any obligations to the other Party thereunder, except for Metra's warranty obligations with respect to work performed.

3. Mutual Releases:

a. Metra and its members, managers, officers, directors, agents, employees, insurers, successors and assigns, and anyone claiming rights by or through Metra, hereby releases, forever quitclaims and discharges the ACSA and its members, managers, officers, directors, agents, employees, insurers, successors and assigns, of and from any and all claims, demands, disputes, allegations, causes of action, suits and other obligations, rights or matters, disputed or otherwise, now existing or hereafter arising, whether direct or indirect, known or unknown, related to any matter or thing, including but not limited to the Contract or the Project, excepting only the ACSA's obligations under this Agreement.

b. The ACSA and its members, managers, officers, directors, agents, employees, insurers or bonding company, successors and assigns, and anyone claiming rights by or through the ACSA, hereby releases, forever quitclaims and discharges Metra and its members, managers, officers, directors, agents, employees, insurers, successors and assigns, of and from any and all claims, demands, disputes, allegations, causes of action, suits and other obligations, rights or matters, disputed or otherwise, now existing or hereafter arising, whether direct or indirect, known or unknown, related to any matter or thing, including but not limited to the Contract or the Project, excepting only Metra's obligations under this Agreement.

4. Metra agrees not to bid on any future projects for the ACSA.

5. Each Party agrees that its officers, directors, and managerial level employees will refrain from making any disparaging, critical or derogatory comments about the other Party.

6. There shall be no assessment of liquidated damages against Metra for the Project.

## **II. GENERAL TERMS AND CONDITIONS**

1. Governing Law. This Agreement shall be construed and enforced according to the laws of the Commonwealth of Virginia.

2. Construction. This Agreement shall not be construed more strongly against any Party, regardless of who is responsible for its preparation.

3. Recitals. The foregoing recitals are hereby incorporated by reference as if fully restated.

4. Entire Agreement. This Agreement contains the final and entire agreement between the Parties with respect to the subject matter hereof and is intended to be an integration of all prior negotiations and understandings. All prior agreements and understandings between the Parties concerning the subject matter hereof are superseded by the terms of this Agreement. This Agreement may only be modified in a writing signed by all Parties.

5. Invalidity/Enforceability. If any term, covenant or condition of this Agreement or the application thereof to any person, entity or circumstance shall, to any extent, be held to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and the other terms, covenants or conditions of this Agreement shall be valid and enforceable to the fullest extent permitted by law

6. Counterparts/Signatures. This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute the same instrument. This Agreement shall not be effective until executed by all Parties. Facsimile copies of signatures and copies of signature in PDF shall be as binding as originals.

7. Successors and Assigns. This Agreement shall be binding upon the Parties and their respective heirs, executors, administrators, affiliates, successors, and assigns and shall inure


to the benefit of the Parties' respective heirs, executors, administrators, representatives, affiliates, successors, and assigns, although not individually named.

8. No Admission of Liability. This Agreement is a compromise to resolve a disputed claim and shall not constitute an admission of liability by any Party.


9. Ratification. The Parties acknowledge that the Board of the ACSA will ratify this Agreement to satisfy municipal accounting requirements but such ratification is not a condition to the enforceability of this Agreement.

IN WITNESS WHEREOF, the Parties, by their duly authorized representatives, have caused this Agreement to be executed:

**ALBEMARLE COUNTY SERVICE AUTHORITY**

  
\_\_\_\_\_  
Name: Gary O'Connell  
Title: Executive Director  
Date: June 9, 2022

**METRA INDUSTRIES, INC.**

  
\_\_\_\_\_  
Name: C. William Grascup  
Title: Counsel for Metra  
Date: 6/9/22

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Drinking Water and Wastewater Professionals Appreciation Day-June 30 <sup>th</sup> , 2022	<b>AGENDA DATE:</b> June 16, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Emily Roach, Human Resources & Administration Manager	<b>ACTION:</b> Informational
	<b>ATTACHMENTS:</b> Yes

**BACKGROUND:** Annually the General Assembly, and consequently the ACSA, recognizes our Water and Wastewater Professionals. This year as the global Covid-19 pandemic continues, we commend our staff for their tireless efforts to provide safe, clean and reliable Albemarle water during this unprecedented time. We are fortunate to live in a community that has high quality standards for drinking water and wastewater that we provide to nearly 20,000 ACSA customers, and our employees have been committed to upholding those standards and adhering to the ACSA's core value of public service – "serve and conserve." As the health and well-being of our employees remains a top priority, we will not be celebrating with our normal in-person gathering, but there will be a food truck onsite for employees, as well as some socially distanced events.

**BOARD ACTION REQUESTED:** None.

**ATTACHMENTS:** Resolution



## RESOLUTION

Designating June 30, in 2016 and in each succeeding year, as Drinking Water and Wastewater Professionals Appreciation Day by the Albemarle County Service Authority (ACSA).

**WHEREAS**, before the implementation of reliable drinking water and wastewater treatment, thousands of people in the United States died of waterborne diseases like cholera, dysentery, typhoid, polio, and hepatitis each year; and

**WHEREAS**, the World Health Organization estimates that unsafe water supplies in developing nations still cause approximately 1.8 million deaths annually; and

**WHEREAS**, technological advances by water and wastewater professionals have improved the treatment of both drinking water and wastewater in Albemarle County, Virginia; and

**WHEREAS**, access to clean drinking water is crucial to the health and safety of more than 8.3 million Virginians, and to more than 100,000 area residents; and

**WHEREAS**, treatment of more than 10 million gallons a day of wastewater plays a critical role in reducing toxic chemicals and nutrient buildup in Albemarle's surface waters, such as the Rivanna River, James River, and the Chesapeake Bay; and

**WHEREAS**, much of the drinking water and wastewater infrastructure in Albemarle County is located underground in hundreds of miles of pipes, unseen by the public; and

**WHEREAS**, nearly 78 water and wastewater industry professionals at the Albemarle County Service Authority dedicate their careers to keeping drinking water and treated wastewater clean and free of disease-carrying organisms that can harm both humans and the environment; and

**WHEREAS**, the Virginia Section of the American Water Works Association and the Virginia Water Environment Association, and the Virginia General Assembly support the creation of Drinking Water and Wastewater Professionals Appreciation Day;

**NOW, THEREFORE, BE IT RESOLVED**, that the Albemarle County Service Authority hereby designates June 30, in 2016 and in each succeeding year, as Drinking Water and Wastewater Professionals Appreciation Day for the Albemarle County Service Authority; and, be it

**RESOLVED FINALLY**, that the ACSA post the designation of this day on the ACSA website.

---

Chair, Albemarle County Service Authority  
Board of Directors

**ALBEMARLE COUNTY SERVICE AUTHORITY****AGENDA ITEM EXECUTIVE SUMMARY**

**AGENDA TITLE:** Public Hearing on  
Proposed Fiscal Year 2023 Budget and  
Rates

**STAFF CONTACT/PREPARER:**  
Quin Lunsford, Director of Finance  


**AGENDA DATE:** June 16, 2022

**ACTION:** Public Hearing

**ATTACHMENTS:** Yes

**BACKGROUND:** The Proposed Fiscal Year 2023 Budget and Rates are scheduled for a public hearing today, which has been duly advertised. A budgetary and rate summary was provided to all customers through an insert with monthly bills. This insert explained the budget and rates and also noted that a public hearing was scheduled for the June Board meeting. This public hearing follows three months of budget and rate workshops.

**BOARD ACTION REQUESTED:** Consider adoption following public hearing.

**ATTACHMENTS:** Budget and Rate Brochure (sent with monthly bills in May)



# FY '23 Budget & Rates

July 1, 2022 - June 30, 2023

## Continued Responsibility During Uncertain Times

### Dear Customer,

As we emerge from Covid, the ACSA continues down our path of instituting necessary rate increases to support the Rivanna Water and Sewer Authority (RWSA), our wholesale provider of water and wastewater services, as they invest in upgrades to their systems. The estimated cost for their improvements is more than \$200 million over the next five years.

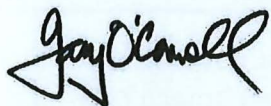
Once again, the ACSA will use our financial tools to reduce your financial burden. However, the RWSA's work must be supported with funding beyond the help that our reserves can provide; they must pass down to the ACSA a 10.9% cost increase for the next fiscal year to fund the essential water and wastewater system upgrades.

The ACSA is responsible for approximately 60% of the RWSA's annual debt service, and charges from the RWSA make up about 62% of our annual operating budget. As a result, we must raise our rates in Fiscal Year 2023, and in the future, to ensure proper funding for all the important work.

The mission of the ACSA is to provide safe, reliable water for an excellent value. As I hope you noticed throughout the last couple of years, delivering safe water to you was a responsibility our employees held dear.

We at the ACSA remain mindful of the uncertain economic times. That's why we are again applying cash reserves to lower this year's proposed rate increase for you. The RWSA's cost increase to the ACSA is 10.9%; our proposed rate increase is 4.6% for our residential customers. It will be slightly higher for our multi-family and non-residential customers who use a greater volume of water.

Once again, the staff of the ACSA and I are extremely grateful for your patience and understanding during the last couple of years, and as we continue taking the right financial steps to protect your systems.



Gary O'Connell  
Executive Director, Albemarle County Service Authority

FY '23 RWSA cost increase  
charged to the ACSA

**10.9%**

ACSA's Use  
of Fund  
Reserves



**4.6%**

FY '23 Proposed ACSA  
Residential Rate Increase

### ACSA Obligations



**62%**

% of ACSA's Operating Budget  
allocated to RWSA's charges



**60%**

% of RWSA debt service  
paid for by the ACSA



# FY'23 Budget Facts & Figures

July 1, 2022 - June 30, 2023

## ACSA Infrastructure Obligations

The ACSA is obligated to provide our wholesale service provider, the Rivanna Water and Sewer Authority, with funding for essential plant upgrades.

Below are the costs for the RWSA's upgrades, which must be paid for by rate increases charged by the ACSA and other regional partners and with the proper use of the ACSA's funding reserves.



### South & North Fork Rivanna Water System

**\$23.2 Million**



### Crozet Water System

**\$31.8 Million**



### Observatory Water Treatment Plant & Ragged Mountain/Sugar Hollow Reservoir System

**\$23 Million**



### Moores Creek Advanced Water Resource Recovery Facility (Wastewater)

**\$31.8 Million**

## Proposed ACSA FY'23 Water & Sewer Monthly User Rates

Rates and Charges	FY'22	FY'23
Service Charge	\$9.00	\$9.45
Volume Charge: Single-Family Residential (per 1,000 gallons)		
Level 1: Up to 3,000 gallons	\$4.70	\$5.05
Level 2: 3,001 to 6,000 gallons	\$9.43	\$10.14
Level 3: 6,001 to 9,000 gallons	\$14.13	\$15.19
Level 4: More than 9,000 gallons	\$18.86	\$20.27
Multi-Family/Non-Residential (per 1,000 gallons)	\$9.09	\$10.14
Sewer: All Users (per 1,000 gallons)	\$9.94	\$10.24

## Combined Monthly Bill Comparison

Single-Family Residential, 3,200 Gallons

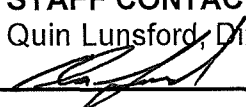


ACSA Proposed Budget & Rates  
Public Hearing (Virtual Details TBD)

Thursday, June 16 @ 9am  
[www.serviceauthority.org](http://www.serviceauthority.org)

## ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

<p><b>AGENDA TITLE:</b> Adoption of Fiscal Year 2023 Operating and Capital Improvement Budget and Rates</p> <p><b>STAFF CONTACT/PREPARER:</b> Quin Lunsford, Director of Finance</p> 	<p><b>AGENDA DATE:</b> June 16, 2022</p> <p><b>ACTION:</b> <input checked="" type="checkbox"/> <b>INFORMATION:</b> <input type="checkbox"/></p> <p><b>ATTACHMENTS:</b> Yes</p>
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**BACKGROUND:** The Proposed Fiscal Year (FY) 2023 Budget and Rates have been presented to the Board, following public comment. The proposed budget is \$46,212,150. The proposed rate schedule changes are attached.

**DISCUSSION:** The overall proposed operating budget is increasing 11.4%, primarily driven by increases in charges for water, wastewater treatment, debt service charges from the RWSA, and implementation of recommendations from a formal pay study. The rates charged to customers are proposed to increase to cover these increases in expenses. At today's meeting, the Board is asked to adopt the FY 2023 Operating and Capital Improvement Budget and Rates, to be effective July 1, 2022.

Highlights from the FY 2023 Proposed Budget include:

- A projected increase of \$1.32M or 10.6% for the purchase of water.
- A projected increase of \$1.09M or 11.3% for wastewater treatment.
- Increases in personnel costs based on a formal classification and compensation study.
- The capital improvement program continues replacement of aging and undersized pipelines, creating redundancy in the water system, identifying I/I in our sanitary sewer system, and replacement of a compromised sewer line due to erosion. Total estimated project costs for FY 2023 are \$8,178,050.

**RECOMMENDATION:** Approve as recommended.

**BOARD ACTION REQUESTED:** Adopt the Resolution for the FY 2023 Operating and Capital Improvement Budget and Rates, which includes the rate schedule to be effective July 1, 2022.

**ATTACHMENTS:** Resolution adopting FY 2023 Operating and Capital Improvement Budget and Rates, Rate Schedule, and Budget PowerPoint presentation.



RESOLUTION  
FISCAL YEAR 2023 BUDGET AND RATES

BE IT RESOLVED that the Albemarle County Service Authority (ACSA) Board of Directors, after a duly advertised public hearing, hereby adopt the Fiscal Year 2023 Operating and Capital Improvement Budget and adopt the Water and Sewer Rate Schedule of the ACSA Rules and Regulations (Appendix B), effective July 1, 2022.

\*\*\*\*\*

I certify that the forgoing is a true and exact copy of a resolution adopted by the Board of Directors of the Albemarle County Service Authority in a regular session on June 16, 2022, by a vote of \_\_\_ to \_\_\_.

---

Gary B. O'Connell, Secretary-Treasurer



THE ALBEMARLE COUNTY SERVICE AUTHORITY  
WATER AND SEWER RATE SCHEDULE

EFFECTIVE JULY 1, 2022

Water	<u>FY 2022</u>	<u>Proposed</u> <u>FY 2023</u>
<b>Service Charge by Meter Size</b>		
3/4"	\$ 9.00	\$ 9.45
1"	\$ 17.28	\$ 23.63
1 1/2"	\$ 31.13	\$ 47.25
2"	\$ 47.72	\$ 75.60
3"	\$ 92.02	\$ 151.20
4"	\$ 141.83	\$ 236.25
6"	\$ 272.03	\$ 472.50
<b>Volume Charge - Single-Family Residential</b>		
<b>(per 1,000 gallons)</b>		
Level 1 (0-3,000 gallons)	\$ 4.70	\$ 5.05
Level 2 (3,001-6,000 gallons)	\$ 9.43	\$ 10.14
Level 3 (6,001-9,000 gallons)	\$ 14.13	\$ 15.19
Level 4 (over 9,000 gallons)	\$ 18.86	\$ 20.27
Multi-Family/Non-Residential (per 1,000 gallons)	\$ 9.09	\$ 10.14
<b>Wastewater</b>		
Sewer/All Users (per 1,000 gallons)	\$ 9.94	\$ 10.24

***All other charges reflected on attached rate schedule.***

Further information may be obtained from the ACSA website at [www.serviceauthority.org](http://www.serviceauthority.org) or the office of the Executive Director by calling the ACSA office at (434) 977-4511 ext.3.

Gary B. O'Connell  
Executive Director

**ALBEMARLE COUNTY SERVICE AUTHORITY  
WATER AND SEWER RATE SCHEDULE**

***Effective July 1, 2022***

**Section 2-01. General**

3. Additional sets of the *General Water and Sewer Construction Specifications* may be supplied by the Authority to any recipient of the one free set at a cost of \$10.00 per set.

**Section 7-08. Temporary Water Service**

A. Temporary Water Service

Initial Fee ~~\$25.00~~ \$50.00  
Each 30-Day Extension ~~\$25.00~~ \$50.00

B. Meter Size Deposit

~~5/8~~ 3/4" & 1" ~~\$150.00~~ \$300.00  
1 1/2" ~~\$250.00~~ \$400.00  
2" ~~\$350.00~~ \$500.00

**Section 7-09. Temporary Use of Fire Hydrants** [Revised 10/1/16]

B. 1" hydrant meter - ~~\$550.00~~ (~~\$60.00~~ non-refundable)  
1 1/2" hydrant meter - ~~\$800.00~~ (~~\$80.00~~ non-refundable)  
3" hydrant meter - \$2,000 (~~\$100.00~~ non-refundable)

D. A usage fee of ~~\$20.00~~ \$25.00 per month will be charged for hydrant use through the hydrant meter. Failure to submit a meter reading will result in a \$50.00 non-refundable fee.

**Section 8 Cross-Connection and Backflow Prevention; Section 8-21. Violation Charges**

Item #	Charge	Violation
1	\$1,000	Failure to correct an identified cross-connection – high hazard
2	\$500	Failure to correct an identified cross-connection – low <del>to moderate</del> hazard
3	\$1,000	Failure to install an approved backflow prevention <del>device</del> <u>assembly</u> – high hazard
4	\$500	Failure to install an approved backflow prevention <del>device</del> <u>assembly</u> – low <del>to moderate</del> hazard
5	\$1,000	Removal or by-pass of a required backflow prevention <del>device</del> <u>assembly</u> – high hazard
6	\$500	Removal or by-pass of a required backflow prevention <del>device</del> <u>assembly</u> – low <del>to moderate</del> hazard
7	\$250	Failure to provide a passing test report for a backflow prevention <del>device</del> <u>assembly</u> – high hazard
8	\$100	Failure to provide a passing test report for a backflow prevention <del>device</del> <u>assembly</u> – low <del>to moderate</del> hazard



**Section 10-03. Meter Testing Charge**

<del>5/8</del> 3/4" - 1"	<del>\$400.00</del> 200.00
1 1/2" - 2"	<del>\$150.00</del> 250.00
3" - larger	\$ Actual Cost+25%

**Section 11-05 Deposits For Temporary Meters**

<u>Meter Size</u>	<u>Deposit</u>
<del>5/8</del> 3/4" & 1"	<del>\$150.00</del> 300.00
1 1/2"	<del>\$250.00</del> 400.00
2"	<del>\$350.00</del> 500.00

**Section 11-06. Deposits For Fire Hydrant Meters**

<u>Meter Size</u>	<u>Deposit</u>
1"	<del>\$550</del> 600 ( <del>\$60-100</del> non-refundable)
1 1/2"	<del>\$800-950</del> (\$80-150 non-refundable)
3"	\$2,000 ( <del>\$400-200</del> non-refundable)

**Section 12-02. Water and Sewer Rates****VOLUME CHARGES**

In addition to the fixed monthly service charge (Section 12-03), a volume charge based upon monthly metered water use will be assessed as follows:

**Water****Metered Consumption****Residential and All Irrigation Water Rates:**

Level 1 (0-3,000 gallons per month)	\$ <del>4.70</del> 5.05 per thousand gallons
Level 2 (3,001-6,000 gallons per month)	\$ <del>9.43</del> 10.14 per thousand gallons
Level 3 (6,001-9,000 gallons per month)	\$ <del>14.13</del> 15.19 per thousand gallons
Level 4 (over 9,000 gallons per month)	\$ <del>18.86</del> 20.27 per thousand gallons

Non-Residential and Multi-Family Residential Water Rate (except irrigation water):

~~\$9.09~~10.14 per thousand gallons

For customers having both a primary and auxiliary meter, the four rate levels will be applied to the sum of the consumption on both meters, not to each individual meter.

**Wastewater**

Metered Consumption	\$ <del>9.94</del> 10.24 per thousand gallons
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### Section 12-03. MONTHLY SERVICE CHARGE

The fixed monthly service charge will be assessed based on meter size as follows:

<u>Meter Size</u>	<u>Service Charge</u>
<del>5/8</del> 3/4"	<del>\$9.00</del> 9.45
1"	<del>\$17.28</del> 23.63
1 1/2"	<del>\$31.43</del> 47.25
2"	<del>\$47.72</del> 75.60
3"	<del>\$92.02</del> 151.20
4"	<del>\$141.83</del> 236.25
6"	<del>\$272.03</del> 472.50

### Section 12-04. CONNECTION CHARGES

Payment for the applicable connection charges will be accepted only after the issuance of a building permit.

Service Connection (Tap) Charge - To defray the cost of installation of a service connection from the water and/or wastewater main in the public right-of-way to the curb or property line and/or the installation of meters, all new services will be charged according to the following schedule:

(a) Water

Primary Meters

<del>5/8</del> 3/4" meter and connection	<del>\$1,026</del> 1,116
1" meter and connection	<del>\$1,094</del> 1,182
Over 1" meter and connection	Actual Cost
<del>5/8</del> 3/4" meter only	<del>\$184</del> 200
1" meter only	<del>\$277</del> 300
Over 1" meter only	Actual Cost

Auxiliary Meters

Actual Cost

(b) Wastewater

All Taps

Actual Cost

### Section 12-05. System Development Charge

In order to defray, in part, the cost to the ACSA of providing major transmission/distribution mains, collection lines, pumping stations and storage facilities necessary to provide water and wastewater service to new customers in the ACSA system. This charge shall be assessed on the basis of equivalent residential connections (ERC):

Water	\$1,890 per ERC
Wastewater	\$2,970 per ERC*

\*Except certain Glenmore parcels as defined by Glenmore WWTP Agreement dated June 15, 1995

### Section 12-06. RWSA Capacity Charge

All new water and sewer connections to the ACSA systems shall be assessed a charge to defray, in part, the cost of providing capacity for a new customer in the RWSA system. This charge shall be



assessed on the basis of equivalent residential connections (ERC):

Water	\$4,760 per ERC
Wastewater	\$3,850 per ERC*

\*Except certain Glenmore parcels as define by Glenmore WWTP Agreement dated June 15, 1995

#### Section 12-05/06. System Development/RWSA Capacity Charge ERC Calculation

Connection Charges for metered services larger than 5/8 3/4" shall be equated to equivalent residential connections (ERC) according to the following ratios:

<u>5/8 3/4</u> " meter	=	1 ERC	3" meter	=	16 ERCs
1" meter	=	2.5 ERCs	4" meter	=	25 ERCs
1 1/2" meter	=	5 ERCs	6" meter	=	50 ERCs
2" meter	=	8 ERCs			

System Development and RWSA Capacity Fees for multi-family, hotel, hospital, assisted living facility, nursing care facility, master-metered single-family units, or master-metered mobile home parks shall be charged the higher of a fee based upon meter size or the calculation of the number of units multiplied by the following factors:

Multi-family	1 unit	=	0.50	ERC
Hotels	1 room	=	0.50	ERC
Mobile Home Park	1 mobile home	=	1.00	ERC
Hospitals	1 bed	=	1.00	ERC
Assisted Living Facility	1 bed	=	0.40	ERC
Nursing Care Facility	1 bed	=	0.75	ERC
Master-Metered Single-Family	1 unit	=	1.00	ERC

For large or unusual new connections where, high demand may be anticipated, the Authority reserves the right to calculate system development and capacity fees based on engineering data specific to that customer rather than using the ERC factors above.

#### Section 12-07. Connection Fees for Irrigation Meters

A. Auxiliary Meters Actual cost of installation

B. Primary Meters All applicable connection fees as noted in Appendix B, section 12-04 and 12-09

#### Section 12-08. Line Tapping Fee:

Where the ACSA provides water main taps to accommodate line extensions, fire sprinkler systems and similar uses, a tapping fee will be assessed to the customer in accordance with the following schedule:

#### TAPPING

<u>MACHINE</u>	<u>TAP SIZE</u>	<u>LINE SIZE</u>	<u>PRICE</u>
E-4	3/4" - 1"	1 1/4" - 3"	<del>\$140.00</del> 170.00
B-100	3/4" - 1"	4" - 24"	<del>\$140.00</del> 170.00
A-2	1 1/2" - 2"	6" - 24"	<del>\$210.00</del> 250.00

CL-12                      4" – 12"                      4" – 24"                      ~~\$84.00~~100/inch  
INSTALLATION OF TAPPING SLEEVES AND TAPPING VALVES

All water mains shall be uncovered and cleaned by the customer, who shall install tapping sleeves and valves. The excavation shall be prepared in accordance with all applicable safety regulations. Return trip charges resulting from the customer failing to properly prepare the trench and pipe for the tapping/inserting operation will be billed to the customer. These additional costs shall include labor, equipment, and overhead costs.

**Section 12-10. NFRPS Special Rate District Fees**

All sewer connections to the wastewater collection system within the North Fork Regional Pump Station Special Rate District shall be charged the following additional fee effective October 18, 2012:

North Zone	\$2,275.00 per ERC
South Zone	\$1,389.00 per ERC

Refer to Appendix C for a list of Tax Map Parcels within the North Fork Regional Pump Station Special Rate District and the North Fork Regional Pump Station Special Rate District Map.

**Section 13. Miscellaneous Charges**

13.02. Account Charge	<del>\$8.00</del> <u>12.00</u> per each new account
13-03. Delinquent Cut Off/On Fee	<del>\$26.00</del> <u>35.00</u> /trip during normal work hours
13-04. Reconnection Fee	<del>\$72.00</del> <u>80.00</u> after work hours & weekends
<del>5/8</del> <u>3/4</u> " - 1 1/2" meter	<del>\$26.00</del> <u>35.00</u>
2" - 4" meter	<del>\$33.00</del> <u>50.00</u>
Larger than 4" meter	Actual Cost
work 13-05. Special Service Fee	<del>\$26.00</del> <u>35.00</u> /trip during normal hours
	<del>\$72.00</del> <u>80.00</u> after work hours & weekends
13-06. Meter Size Change Fee All Meters	Actual Cost
13-07. Exceptional Payment Processing Fee	\$35.00 (Payable by Cash only)
13-08. Testing Fee	Actual Cost
13-09. Delinquent Payment Penalty	10% On Outstanding balance
Late Payment Charge	1 1/2% per month
13-10. Meter Re-read Fee	<del>\$26.00</del> <u>35.00</u>

	13-11. Construction Plan Review Charge	<del>\$49.00</del> 60.00/hour	
	As-built Plan Review	<del>\$49.00</del> 60.00/hour	Engineer
	Review		
	Review	<del>\$34.00</del> 40.00/hour	Inspector
	13-12. Construction Inspection Fees:		
	Water and/or Sewer lines greater than 400 linear feet	<del>\$</del> .78.94/linear foot	
	Water and/or Sewer lines less than 400 linear feet	Actual Cost	
	Re-inspection Fee of New Water/Sewer Lines	<del>\$34.00</del> 40.00/hour	
	Inspection of New Pumping Stations	Actual Cost	
	13-13. Failure to Report Hydrant Meter Reading	\$50.00	
	13-14. Irrigation System Application Processing Fees:		
	a. Plan Review and Meter Sizing	<del>\$</del> 25.0030.00	
	b. Cost Estimate preparation	\$125.00	
	13-15. Meter Tampering Fee	<del>\$250.00</del> 300.00	

## VOLUME CHARGES DURING EMERGENCY WATER RESTRICTIONS

(As set forth in Section 16)

### Water

Beginning with the first billing cycle following adoption of Emergency Water Restrictions, in addition to the fixed monthly service charge, a volume charge based upon monthly metered water use will be assessed as follows:

<b>Single-Family Residential</b>	<b>Per 1,000 gallons</b>
Level 1 (0-3,000 gallons per month)	Normal Rate x 1.25
Level 2 (3,001-6,000 gallons per month)	Normal Rate x 1.50
Level 3 (6,001-9,000 gallons per month)	Normal Rate x 2.00
<b>Level 4 (over 9,000 gallons per month)</b>	<b>Normal Rate x 2.00</b>
<b>Non-Single Family Residential</b>	<b>Per 1,000 gallons</b>
All usage	Normal Rate x 1.50

### 16-06. PENALTIES.

First offense \$ 500.00

Second offense \$1,000.00

In addition to the penalty charge, the ACSA may terminate of water service for the duration of the emergency.

## Section 18. Carwash Certification Program

### 18-04. FEES.

CCP Application Fee \$100.00

CCP Annual Renewal Fee \$100.00

### 18-05. INSPECTION.

CCP Re-application Fee \$100.00



**Section 19. Fats, Oils, and Grease (FOG)**

**19-22. COSTS AND CHARGES.**

Item #	Cost/Charge	Description/Infraction
1	<del>\$250</del> 300/3 years	FOG Waste Discharge Permit
2	\$1,000/month *	NOV- failure of an FSE to install or repair grease control device
3	\$1,000/month *	NOV- repeated failure of an FSE to properly maintain grease control device, and repeated excessive FOG discharge from an FSE
4	\$500	NOV - failure of an FSE to keep grease control maintenance records on site and available to the ACSA
5	\$500	NOV- falsification by an FSE of grease control device maintenance records
6	\$500/month *	NOV- failure of an FSE to submit a FOG Waste Discharge Permit application or pay a permit fee
7	Assessed amount	An FSE whose operations allow grease accumulation - all costs to clean and repair the ACSA facilities
8	Assessed amount	An FSE whose operations allow grease accumulation that results in a sanitary sewer overflow - all costs to clean and repair the ACSA facilities
9	Assessed amount	An FSE whose operations allow grease accumulation that results in a sanitary sewer overflow- all fines levied by the state or federal government
10	Up to \$10,000/occurrence	Commercial waste hauler or individual – illegal discharge of grease wastes to the ACSA system

\*Until the violation is corrected to the satisfaction of the ACSA.

# Fiscal Year 2023 Budget & Rate Workshop

June 16, 2022



## Fiscal Year 2023 Annual Operating and Capital Improvement Budget

July 1, 2022 to June 30, 2023





# Budget Workshop Agenda

- ◆ ACSA Overview
- ◆ FY 2022 Forecasts
- ◆ Water and Sewer Rate Study Recommendations
- ◆ FY 2023 Budget Highlights/Summary
- ◆ Proposed Rate Review
- ◆ Value of Water/Customer Bill Comparisons
- ◆ Capital Improvement Program Overview
- ◆ Next Steps

Clean, Safe,  
Reliable



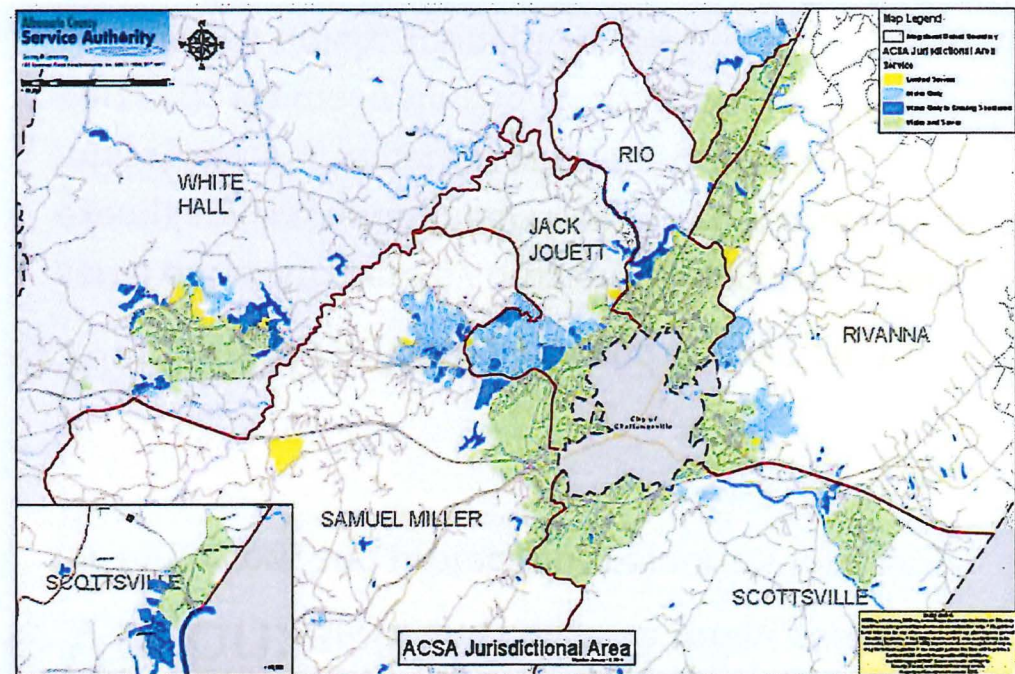
◆ **Vision:** Serve and conserve today, sustain for tomorrow, and protect our resources forever.

◆ **Mission:** With pride and dedication we serve our customers by providing clean, safe water, exemplary wastewater services, and fire protection infrastructure. Together with our community partners, we maintain and improve our utility system in a timely, cooperative, and financially responsible manner.



## Albemarle County Service Authority (ACSA)

- ◆ Founded in 1964
- ◆ Serving 81,900+ customers
- ◆ 21,500+ water accounts and growing
- ◆ 79 Dedicated Employees
- ◆ 364 Miles of Water Lines
- ◆ 316 Miles of Sanitary Sewer Lines
- ◆ 20 Pump Stations
- ◆ 8 Water Storage Tanks
- ◆ 3,121 Fire Hydrants



# Projections for the Remainder of Fiscal Year 2022

## ◆ Operating Revenue Projections:

### ◆ Water Revenues:

- ◆ Expected to exceed budgeted amounts by approximately 5.5% or \$900,000

### ◆ Sewer Revenues:

- ◆ Expected to exceed budgeted amounts by approximately 9% or \$1,260,000

## ◆ Operating Expense Projections:

### ◆ Water Expenses:

- ◆ Expected to be below budgeted expectations by approximately 0.3% or \$40,000

### ◆ Sewer Treatment Expenses:

- ◆ Expected to be below budgeted expectations by approximately 1.5% or \$145,000



# Formal Water and Sewer Rate Analysis Recommendations

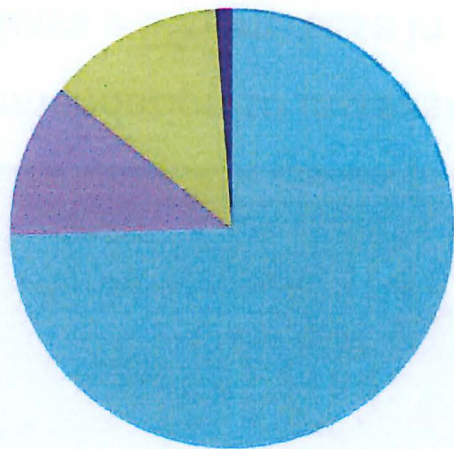
# Rate Study and Analysis Recommendations

- ◆ Recommendation to increase single-family customer rates 4.6% for FY 2023
  - ◆ Follows a 5% increase in FY 2022 and no increase in customer rates in FY 2021
- ◆ Maintain current system development/capacity charges
- ◆ Adjust service charges to align with meter size equivalents referenced in the AWWA Manual M1
- ◆ Adjust the multi-family/non-residential rate equal to Tier 2 of the single-family-rate
- ◆ Adjust other charges to align with actual cost of services provided
- ◆ Use of reserves to smooth customer rate increases over time



# Revenue Streams and Reserves

## Where the Dollars Come From



■ Water/Sewer Charges	\$34,422,000	74.5%
■ Reserves	5,292,350	11.5%
■ System Connection Charges	5,926,800	12.8%
■ Other Revenues	571,000	1.2%
Total Budgeted Revenues	\$46,212,150	100.0%

# Budgeted Expenses and Capital Costs

Purchase of Water/Wastewater Treatment and Debt Service for RWSA  
Growth Projects \$24,550,000

Capital Improvement Program \$8,178,050

Maintenance  
Department  
\$4,509,000

Finance  
Department  
\$2,502,100

Engineering  
Department  
\$2,288,400

Information  
Technology  
\$1,521,900

Administra...  
Department  
\$1,286,500

Other Expenses  
\$796,200

Bond Debt  
Service  
\$580,000



# Proposed Water and Sewer Rates FY 2023

FY 2023 Budget proposes a 4.6% increase in monthly single-family customer water and sewer rates

## ACSA Water and Sewer Monthly User Rates

	FY 2022	FY 2023
<b>Service Charge</b>	\$ 9.00	\$ 9.45
<b>Volume Charge - Single-Family Residential (per 1,000 gallons)</b>		
Level 1 (0-3,000 gallons)	\$ 4.70	\$ 5.05
Level 2 (3,001-6,000 gallons)	\$ 9.43	\$10.14
Level 3 (6,001-9,000 gallons)	\$14.13	\$15.19
Level 4 (over 9,000 gallons)	\$18.86	\$20.27
Multi-Family/Non-Residential	\$ 9.09	\$10.14
<b>Sewer/All Users (per 1,000 gallons)</b>	\$ 9.94	\$10.24

# Proposed Water and Sewer Rates FY 2023

The proposed increase in customer water and sewer rates is attributable to:

- RWSA treatment and capital cost increases
  - Water: +10.6% increase compared to prior FY or \$1.32M
  - Sewer: +11.3% increase compared to prior FY or \$1.09M
- Total departmental operating budget increase of 13.7% or \$1.5M

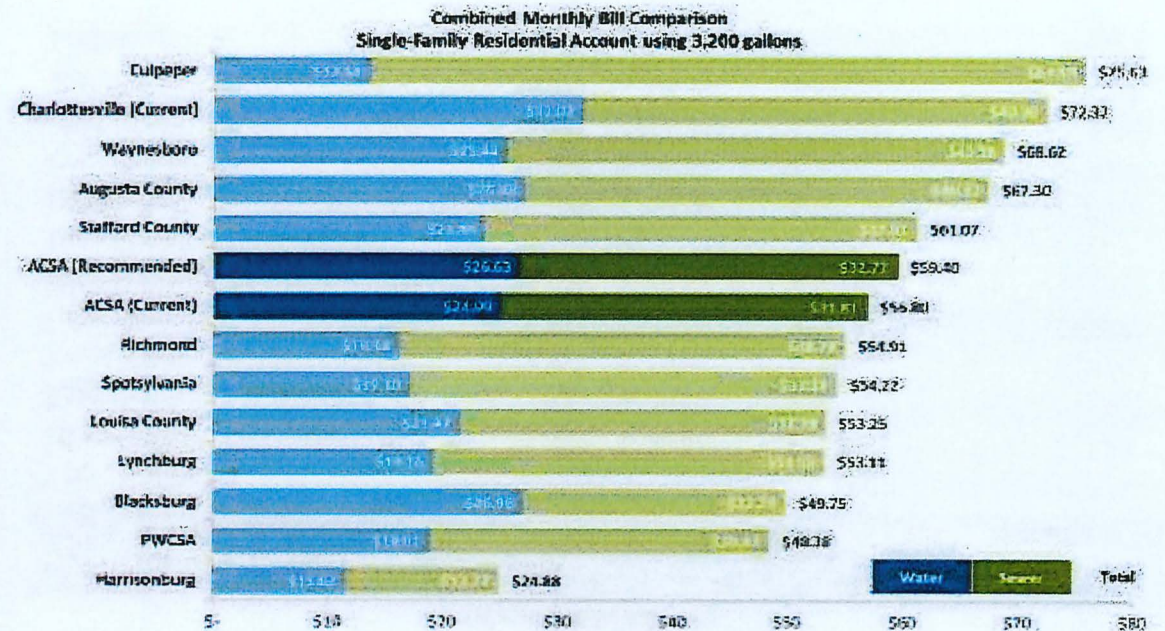


# Use of Reserves and Projections

The proposed budget includes:

- **\$1.5M from rate stabilization reserves, to fund “non-growth” ACSA CIP**
- **\$3.8M from “growth reserves” to fund ACSA “growth” CIP and RWSA “growth related debt service charges”**
- **Use of reserves proposed to mitigate the rate increase required by customers in the upcoming year as the community continues to recover from the COVID-19 Pandemic**
- **Sound financial management and growing system provides the opportunity to more smoothly increase customer rates over time**

# ACSA Monthly Bill Comparison to Comparable Utilities



# Sample Monthly Combined Water and Sewer Bill

Sample Monthly Combined  
(Water and Sewer) Bills

Combined Water and Sewer	Meter Size	Monthly Usage (gallons)	Current Bill	Recommended FY 2023 Bill	Monthly \$ Change
<b>Single-Family</b>					
Minimal User	3/4"	1,200	\$ 26.57	\$ 27.80	\$ 1.23
Small User	3/4"	2,500	\$ 45.60	\$ 47.68	\$ 2.08
Average User	3/4"	3,200	\$ 56.80	\$ 59.40	\$ 2.60
Large User	3/4"	6,200	\$ 115.84	\$ 121.55	\$ 5.71
Excessive User	3/4"	7,700	\$ 151.95	\$ 159.69	\$ 7.74
<b>Multi-Family/Non-Residential</b>					
Multi-Family	1"	33,700	\$ 658.59	\$ 710.44	\$ 51.85
Com. (Offices)	1"	6,300	\$ 137.17	\$ 152.02	\$ 14.85
Com. (Other)	3/4"	4,700	\$ 98.44	\$ 105.24	\$ 6.80
Industrial	1 1/2"	16,500	\$ 345.13	\$ 383.52	\$ 38.39
Institutional	3/4"	13,000	\$ 256.39	\$ 274.39	\$ 18.00



# Value of Water





# Capital Improvement Program (CIP) Proposed FY 2023

Project Type	Proposed Cost
Water Projects	\$ 4,861,550
Wastewater Projects	3,316,500
Total	\$ 8,178,050

## Budget Next Steps

- ◆ June 16, 2022
  - ◆ Public Hearing
  - ◆ 2<sup>nd</sup> Budget Workshop
  - ◆ Budget Adoption
  - ◆ Rate Adoption
- ◆ FY 23
  - ◆ Development of the Strategic Plan (FY 23-25)
  - ◆ Long-range financial review and funding analysis



serviceauthority.org  
Customer Service: 434-977-4511  
custserv@serviceauthority.org

## FY'23 Budget & Rates

July 1, 2022 - June 30, 2023

### Continued Responsibility During Uncertain Times

#### Dear Customer,

As we emerge from Covid, the ACSA continues down our path of instituting necessary rate increases to support the Rappahannock Water and Sewer Authority (RWSA), our wholesale provider of water and wastewater services, as they invest in upgrades to their systems. The estimated cost for their improvements is more than \$200 million over the next five years.

Once again, the ACSA will use our financial tools to reduce your financial burden. However, the RWSA's work must be supported with funding beyond the help that our reserves can provide, they must pass down to the ACSA a 10.9% cost increase for the next fiscal year to fund the essential water and wastewater system upgrades.

The ACSA is responsible for approximately 60% of the RWSA's annual debt service, and charges from the RWSA make up about 62% of our annual operating budget. As a result, we must raise our rates in Fiscal Year 2023, and in the future, to ensure proper funding for all the important work.

The mission of the ACSA is to provide safe, reliable water for an excellent value. As I hope you noticed throughout the last couple of years, delivering safe water to you was a responsibility our employees held dear.

We at the ACSA remain mindful of the uncertain economic times. That's why we are again applying cash reserves to lower this year's proposed rate increase for you. The RWSA's cost increase to the ACSA is 10.9%; our proposed rate increase is 4.6% for our residential customers. It will be slightly higher for our multi-family and non-residential customers who use a greater volume of water.

Once again, the staff of the ACSA and I are extremely grateful for your patience and understanding during the last couple of years, and as we continue taking the right financial steps to protect your systems.

Gary O'Connell  
Executive Director, Albemarle County Service Authority

FY'23 RWSA cost increase  
charged to the ACSA

**10.9%**

ACSA's Use  
of Fund  
Reserves



**4.6%**

FY'23 Proposed ACSA  
Residential Rate Increase

ACSA Obligations

**62%**


% of ACSA's Operating Budget  
allocated to RWSA's charges

**60%**

% of RWSA debt service  
paid for by the ACSA



# Additional Questions?



## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Amendments to Personnel Management Plan	<b>AGENDA DATE:</b> June 16, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Emily Roach, Human Resource & Administration Manager	<b>ACTION:</b> Yes
	<b>ATTACHMENTS:</b> Yes

**BACKGROUND:** In 1983, the Albemarle County Service Authority adopted a Personnel Management Plan (PMP). From time to time, it is necessary to amend that plan to ensure that conditions of employment remain equitable, uniform, and up to date with current best practices, and that the contents of that plan are clear and concise.

The ACSA will update the salary grade table, Appendix B, Page 99, by expanding the current salary structure from a 50% spread from the minimum to maximum points, to a 60% spread from minimum to maximum, as well as a 10% increase to all midpoints effective July 1, 2022.

We feel this adjustment will help the ACSA maintain competitive starting salaries, as well as ensure we are competitive in the market.

**BOARD ACTION REQUESTED:** Approve the recommended changes to the Personnel Management Plan.

**ATTACHMENTS:** -Personnel Management Plan Redline Edits  
-Resolution



**APPENDIX B  
ACSA SALARY PLAN PAY GRADES**

Department	Grade	Title	Minimum	Minimum	Mid-Point	Mid-Point	Maximum	Maximum
Finance	1	Meter Technician I	\$33,121	\$35,032	\$41,402	\$45,542	\$49,682	\$56,052
Maintenance	1	Utility Worker I	\$33,121	\$35,032	\$41,402	\$45,542	\$49,682	\$56,052
Finance	2	Accounting Clerk	\$37,262	\$39,411	\$46,577	\$51,235	\$55,892	\$63,058
Finance	2	Meter Technician II	\$37,262	\$39,411	\$46,577	\$51,235	\$55,892	\$63,058
Administration	2	Administrative Office Associate	\$37,262	\$39,411	\$46,577	\$51,235	\$55,892	\$63,058
Finance	2	Customer Service Representative I	\$37,262	\$39,411	\$46,577	\$51,235	\$55,892	\$63,058
Engineering	2	Utility Location Technician	\$37,262	\$39,411	\$46,577	\$51,235	\$55,892	\$63,058
Maintenance	2	Utility Worker II	\$37,262	\$39,411	\$46,577	\$51,235	\$55,892	\$63,058
Engineering	3	Engineering Technician I	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Finance	3	Customer Service Representative I	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Engineering	3	Utility Location Technician	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Finance	3	Customer Service Representative II	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Maintenance	3	Facilities Maintenance Technician	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Maintenance	3	Electrical Pump Apprentice	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Maintenance	3	Hydrant Technician	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Maintenance	3	Valve Technician	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Finance	3	Senior Meter Technician	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Maintenance	3	Utility Worker III	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Administration	3	Executive Assistant	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Maintenance	3	Maintenance Administrative Assistant	\$41,954	\$44,374	\$52,442	\$57,687	\$62,931	\$70,999
Engineering	4	Sr. Util. Location Technician	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Engineering	4	Engineering Technician I	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Finance	4	Customer Service Representative II	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Finance	4	Procurement/Financial Specialist	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Finance	4	Payroll/Revenue Specialist	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
IT	4	GIS Technician	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Maintenance	4	Crew Leader	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Maintenance	4	CCTV Technician I	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Maintenance	4	Electrician/Pump Technician	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
Administration	4	Human Resources Technician	\$47,198	\$49,921	\$58,998	\$64,897	\$70,797	\$79,874
IT	5	Systems Analyst	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Finance	5	Procurement/Financial Specialist	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Finance	5	Payroll/Revenue Specialist	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Maintenance	5	Crew Leader	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Maintenance	5	CCTV Technician I	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Maintenance	5	Electrician/Pump Technician	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Administration	5	Human Resources Technician	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Engineering	5	Hydraulic Modeling Technician	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Finance	5	Sr. Customer Service Representative	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
IT	5	SCADA Technician	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Engineering	5	Reg. Compliance Spec.	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Engineering	5	Construction Inspector	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Maintenance	5	CCTV Technician II	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Maintenance	5	Crew Leader II	\$53,086	\$56,149	\$66,358	\$72,994	\$79,629	\$89,838
Finance	6	Meter Operations Supervisor	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
IT	6	SCADA Technician	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
Maintenance	6	CCTV Technician II	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
Maintenance	6	Crew Leader II	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
Engineering	6	Civil Engineer	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
Finance	6	Accounting Supervisor	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
Finance	6	Customer Service Supervisor	\$59,711	\$63,155	\$74,638	\$82,102	\$89,566	\$101,049
IT	7	GIS and CMMS Coordinator	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Finance	7	Meter Operations Supervisor	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Engineering	7	Civil Engineer	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Finance	7	Accounting Supervisor	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Finance	7	Customer Service Supervisor	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
IT	7	Systems Engineer	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
IT	7	ISO Systems Engineer	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Engineering	7	Modeling Engineer	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Engineering	7	Environmental Compliance Specialist	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Maintenance	7	Operations Supervisor	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Maintenance	7	Facilities Supervisor	\$67,163	\$71,038	\$83,954	\$92,349	\$100,744	\$113,660
Engineering	8	Sr. Civil Engineer	\$75,535	\$79,893	\$94,419	\$103,861	\$113,303	\$127,829
Maintenance	8	Operations Supervisor	\$75,535	\$79,893	\$94,419	\$103,861	\$113,303	\$127,829
Maintenance	8	Facilities Supervisor	\$75,535	\$79,893	\$94,419	\$103,861	\$113,303	\$127,829
IT	9	Manager of Information Technology*	\$85,012	\$89,916	\$106,265	\$116,891	\$127,518	\$143,866



APPENDIX B  
ACSA SALARY PLAN PAY GRADES

Engineering	9	Sr. Civil Engineer	<del>\$85,012</del>	\$89,916	<del>\$106,265</del>	\$116,891	<del>\$127,518</del>	\$143,866
Administration	9	Human Resources and Administration Manager*	<del>\$85,012</del>	<del>\$89,916</del>	<del>\$106,265</del>	<del>\$116,891</del>	<del>\$127,518</del>	<del>\$143,866</del>
Maintenance	9	Operations Manager*	<del>\$85,012</del>	<del>\$89,916</del>	<del>\$106,265</del>	<del>\$116,891</del>	<del>\$127,518</del>	<del>\$143,866</del>
Engineering	10	Director of Engineering*	<del>\$95,592</del>	<del>\$101,107</del>	<del>\$119,490</del>	<del>\$131,439</del>	<del>\$143,388</del>	<del>\$161,771</del>
IT	10	Director of Information Technology*	<del>\$95,592</del>	\$101,107	<del>\$119,490</del>	\$131,439	<del>\$143,388</del>	\$161,771
Administration	10	Director of Human Resources and Administration*	<del>\$95,592</del>	\$101,107	<del>\$119,490</del>	\$131,439	<del>\$143,388</del>	\$161,771
Maintenance	10	Director of Operations*	<del>\$95,592</del>	\$101,107	<del>\$119,490</del>	\$131,439	<del>\$143,388</del>	\$161,771
Finance	10	Director of Finance*	<del>\$95,592</del>	<del>\$101,107</del>	<del>\$119,490</del>	<del>\$131,439</del>	<del>\$143,388</del>	<del>\$161,771</del>
Finance	11	Director of Finance*	\$0	\$113,745	\$0	\$147,869	\$0	\$181,993
Engineering	11	Director of Engineering*	\$0	\$113,745	\$0	\$147,869	\$0	\$181,993

# RESOLUTION

**WHEREAS** the Albemarle County Service Authority in 1983 adopted a Personnel Management Plan for the Authority; and

**WHEREAS** the Personnel Management Plan has been amended from time to time by the Board of Directors, having last been amended and re-enacted in October 2021;

**NOW THEREFORE, BE IT RESOLVED** by the Board of Directors of the Albemarle County Service Authority that the Personnel Management Plan of the Albemarle County Service Authority is hereby amended and re-enacted incorporating changes attached hereto.

\*\*\*\*\*

I, Gary B. O'Connell, do hereby certify that the foregoing is a true and exact copy of a resolution adopted by the Board of Directors of the Albemarle County Service Authority in a regularly scheduled meeting held virtually on June 16, 2022 by a vote of \_\_\_ to \_\_\_.

\_\_\_\_\_  
Gary B. O'Connell, Secretary-Treasurer

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Water Quality Update; CCRs	<b>AGENDA DATE:</b> June 16, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Tim Brown, Environmental Compliance Specialist	<b>ACTION:</b> Informational <b>ATTACHMENTS:</b> No

**BACKGROUND:** Gary has asked that I provide you with a brief update on overall water quality as the annual Drinking Water Quality Reports (aka CCRs) have been released. A copy of the Urban system report is included in your packet. The reports focus on the issues of lead and PFAS that continue to receive a great deal of national attention, but for which our testing shows us to be in a very desirable situation.

**DISCUSSION:** I appreciate the opportunity to talk with you again about our water quality. The CCRs were delivered to our customers through May and include an update on the revised EPA Lead and Copper Rule, and an expanded discussion of the large number of synthetic compounds collectively referred to as PFAS (per- and polyfluoroalkyl substances). I am thankful for the assistance of our consultant, Mike McGill, in putting the reports together.

Questions on these topics, and any others pertaining to general water quality and our testing, will certainly be entertained.

**BOARD ACTION REQUESTED:** None.

**ATTACHMENTS:** -Urban Area 2022 Annual Drinking Water Report  
- 2022 Customer Bill Insert





168 Spotnap Road, Charlottesville, Virginia 22911  
(434) 977-4511 - [www.serviceauthority.org](http://www.serviceauthority.org)

# Urban Area 2022 Annual Drinking Water Report

Includes water testing for 2021



## High-Quality Water Every Single Day

Dear Customer,

The ACSA and the Rivanna Water and Sewer Authority (RWSA), in partnership with the Virginia Department of Health (VDH), work cooperatively to ensure our customers receive a safe and reliable supply of drinking water. The RWSA collects, stores and treats the water, while the ACSA purchases the treated water and delivers it to our customers through our distribution system.

Throughout Covid, dedicated staff has been proud to provide you with high-quality water and wastewater services you could count on. As we continue working to return to normal, our employees' water quality work never ends.

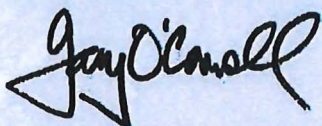
In January 2021, the EPA released the latest Lead and Copper Rule (LCR), a set of regulations governing how water providers must operate their systems so their customers are protected from exposure to lead through their drinking water. The LCR directs us to update our testing processes, search for lead service lines, add schools and childcares to our testing efforts, and improve customer communications.

When it comes to the PFAS compounds which are making news nationwide, the EPA will require testing for 29 more of these chemicals starting in 2023, with the results reported to you through our water quality reports. While we will provide more details to you in the coming months, I can tell you the ACSA, along with our water provider Rivanna Water and Sewer Authority, are uniquely confident about both the lack of lead and PFAS chemicals in our drinking water systems.

Several rounds of water sampling have confirmed we are well in compliance with the EPA's LCR before it even takes effect, and that previously conducted PFAS testing shows we are not detecting these chemicals in our drinking water. This does not mean we will rest on our laurels. We will continue to work every day toward delivering to your taps the safest and cleanest drinking water.

The ACSA is committed to providing you, the customer, with this water quality report because informed customers are our best allies. If you wish to receive a "hard-copy" of the report, please contact Tim Brown at 977-4511, Ext. 119, or at [tbrown@serviceauthority.org](mailto:tbrown@serviceauthority.org).

Thank you again for your patience and consideration during Covid.

A handwritten signature in black ink, reading "Gary O'Connell". The signature is stylized with a large, looped "G" and a cursive "O'Connell".

Gary O'Connell, Executive Director



# Important Information about Your Water

## ACSA Board of Directors

**Clarence Roberts, Chair - Rivanna District**  
**Charles Tolbert, Vice Chair - Jack Jouett District**  
**Richard Armstrong - Scottsville District**  
**Nathan Moore - Rio District**  
**Dr. Lizbeth Palmer - Samuel Miller District**  
**John Parcells - White Hall District**

The ACSA Board of Directors holds meetings on the third Thursday of each month at 9am at 168 Spotnap Road. Call (434) 977-4511 or visit [www.serviceauthority.org](http://www.serviceauthority.org) for more information.

The Rivanna Water & Sewer Authority (RWSA) Board of Directors holds meetings on the fourth Tuesday of each month at 2pm at 695 Moore's Creek Lane. Call (434) 977-2970 or visit [www.rivanna.org](http://www.rivanna.org) for more information.

## Your Water Supply & Treatment

The RWSA operates three water treatment plants (WTP) to provide water to the City of Charlottesville and the urban "ring" served by the ACSA. The South Rivanna WTP is sourced by the South Rivanna Reservoir; the Observatory WTP is sourced by the Ragged Mountain and Sugar Hollow Reservoirs; and the North Rivanna WTP is sourced by the North Fork Rivanna River.

The Source Water Assessment of the South Rivanna Reservoir watershed was updated in 2020 by the Virginia Department of Health (VDH). VDH determined the reservoir's "relative susceptibility to contamination" to be "high" due to its surface water being exposed to an inconsistent array of contaminants at varying concentrations. This assessment is due to changing hydrologic, hydraulic, and atmospheric conditions with potential sources of contamination in one of the zones of the reservoir's assessment area.

All water sources are surface water supplies, replenished by precipitation, stream flow, overland flow, and groundwater flow. All supplies have a low mineral content, are low in hardness or scale ("soft"), and there is little of the iron or manganese commonly found in the area's groundwater. The treated water doesn't have any iron or manganese.

Each plant employs both physical and chemical treatment processes before releasing water into the distribution system. Sodium hypochlorite is used at all three plants to disinfect the treated water. Fluoride is added at each plant to promote good dental health. The origin of the water provided to your tap may vary from time to time depending on demand, the level of storage in the system, and your location.



## **Your Water Supply & Treatment (continued)**

Significant upgrades to all three plants were completed in 2018 related to the Stage 2 Disinfection Byproducts Rule. An advanced treatment process that employs granular activated carbon (GAC) was installed to result in higher quality water. In particular, the concentration of disinfection byproducts (TTHMs and HAAs; see discussion of contaminants) has been significantly reduced. In addition to lowering these chemical compounds, GAC serves as a barrier to other potential contaminants and improves certain taste and odor issues.

### **Water Treatment for Corrosion Control**

It is standard practice that a phosphate chemical be added to drinking water supplies during treatment in order to reduce corrosion of the metal pipes in the distribution system and in customer plumbing. The chemical forms a protective layer on the inside of the pipes, reducing corrosion and the possibility of mainly lead and copper from entering the water.

For more than 30 years, the RWSA has used a polyphosphate product for corrosion control, and it has been very effective in keeping lead and copper out of customer water supplies. The RWSA evaluated and implemented a new, blended, orthophosphate product to optimize distribution system lead and copper corrosion control in February 2021, with a shift to an all-orthophosphate product in February 2022. All testing has shown the change to be effective, and testing will continue through 2022.

### **Advanced Treatment Using Granular Activated Carbon (GAC)**

Granular activated carbon (GAC) is very effective in improving water quality in distribution systems. It was added to all of our treatment processes to aid in the additional removal of organics that, when combined with chlorine, create disinfection byproducts (DBPs) regulated by the EPA. GAC also provides improved water taste and odor, and it is proven to be highly effective at removing a series of man-made and naturally occurring contaminants that are being found in a growing number of water supplies across the county. While testing has shown our service areas are not impacted by these contaminants, GAC provides an added level of treatment for the protection of our drinking water.

Installation of the GAC systems was completed in 2018 and the reduction of DBPs has been dramatic. We are extremely proud of the results that have been achieved because they demonstrate how community support and investment in our water treatment will result in excellent drinking water quality now and for years to come.

### **Water Quality Standards**

The information in this report has been collected and reported in accordance with the drinking water standards established by the USEPA and the VDH. The RWSA conducts



## **Water Quality Standards (continued)**

extensive testing of the source waters and the treated water before it ever leaves the plant, as well as testing weekly, monthly and quarterly samples within the distribution system.

In addition to the data contained in this report, other testing includes such parameters as the "heavy" metals, volatile organic compounds, semi-volatile organic compounds, herbicides, and pesticides in the treated water. They are not listed here since none of these parameters was detected. More specific information can be obtained by contacting Tim Brown at 977-4511, ext. 119, or at [tbrown@serviceauthority.org](mailto:tbrown@serviceauthority.org).

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases radioactive material, as well as substances resulting from the presence of animals and human activities. In other words, all surface water supplies are exposed to a wide array of "contaminants" at varying concentrations. The presence of these contaminants, however, does not necessarily indicate that water poses a health risk, and even bottled water may reasonably be expected to contain at least minimal amounts of some contaminants.

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (800-426-4791) or by visiting their website ([www.epa.gov/safewater](http://www.epa.gov/safewater)). You can also see the section on Cryptosporidium in this report.

## **Internal Issues of Mold**

The most common water-related complaint we've received from our customers over the years is the occasional appearance of a black growth on toilets, and in fixtures like faucets and shower heads. This is a harmless form of mold; the water is completely safe to drink. The mold is not coming into your home through our water pipes. Instead, the mold is the result of airborne spores and the lower level of chlorine in the water cannot prevent mold growth. The spores come from hardwood forests, construction sites, and mulch piles. In particular, we have seen a very clear link between mold and mulch supplies for several years.

Testing found the mold to be very common types. More information, including tips on controlling mold, is found at [www.serviceauthority.org/waterqualitysupply/water-quality](http://www.serviceauthority.org/waterqualitysupply/water-quality).

## **Per- and Polyfluoroalkyl Substances (PFAS)**

Per- and polyfluoroalkyl substances, known more commonly as PFAS, are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their heat, water, and stain resistance. There are thousands of different PFAS, a few of which have been more widely used and studied than the others.



## **Per- and Polyfluoroalkyl Substances (PFAS) (continued)**

PFAS is found in many products in use every day, including:

- Fire extinguishing foam - in aqueous film-forming foams (or AFFFs) used to extinguish flammable liquid-based fires. Such foams are used in training and emergency response events at airports, shipyards, military bases, firefighting training facilities, chemical plants, and refineries.
- Manufacturing or chemical production facilities that produce or use PFAS – for example at chrome plating, electronics, and certain textile and paper manufacturers.
- Food – for example in fish caught from water contaminated by PFAS and dairy products from livestock exposed to PFAS.
- Food packaging – for example in grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes, and candy wrappers.
- Household products and dust – for example in stain and water-repellent used on carpets, upholstery, clothing, and other fabrics; cleaning products; non-stick cookware; paints, varnishes, and sealants.
- Personal care products – for example in certain shampoo, dental floss, and cosmetics.

PFAS can also be found in drinking water in public drinking water systems and private drinking water wells.

Due to their widespread production and use, as well as their ability to move and persist in the environment, surveys conducted by the Centers for Disease Control and Prevention (CDC) show that most people in the United States have been exposed to some PFAS. Most known exposures are relatively low, but some can be high, particularly when people are exposed to a concentrated source over long periods of time. Some PFAS chemicals can accumulate in the body over time.

Current scientific research suggests that exposure to high levels of certain PFAS may lead to adverse health outcomes. However, research is still ongoing to determine how different levels of exposure to different PFAS can lead to a variety of health effects.

Scientists at the EPA, in other federal agencies, and in academia and industry are continuing to conduct and review the growing body of research about PFAS. Research is also underway to better understand the health effects associated with low levels of exposure to PFAS over long periods of time, especially in children.

In December 2021, the EPA finalized the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) to establish nationwide monitoring for 29 per- and polyfluoroalkyl substances (PFAS) in drinking water to address the public health and environmental risks of PFAS in drinking water. The testing will begin in 2023.



## **Per- and Polyfluoroalkyl Substances (PFAS) (continued)**

The ACSA, along with our water provider Rivanna Water and Sewer Authority (RWSA), will conduct the tests as required and report the results in future water quality reports. We can report to you now that we believe PFAS are not a significant issue in our service areas. While we were not required to do so, the ACSA worked with the RWSA to monitor for PFAS compounds in your drinking water.

As mentioned earlier, the ACSA uses advanced water treatment in the form of granular activated carbon (GAC), and it has been proven to be highly effective at removing many PFAS compounds.

**Testing was conducted for 25 PFAS compounds in the raw (untreated) and treated water in 2021. The samples were sent to an independent lab for testing. Of a total of 300 analyses, one PFAS compound was found in two raw water samples and one treated water sample. Each level was less than five parts per trillion (ppt). Testing will be repeated twice in 2022.**

## **Revised Lead and Copper Rule**

The Environmental Protection Agency's (EPA) Lead and Copper Rule (LCR), first established in 1991, recently underwent its most extensive revision in 30 years to better protect children and communities from the risks of lead exposure by better protecting children at schools and child care facilities, getting the lead out of our nation's drinking water, and empowering communities through information.

Improvements under the new rule, which have an effective date of October 2024, include:

- Using science-based testing protocols to identify more lead sources in drinking water.
- Establishing a trigger level to jumpstart mitigation earlier and in more communities.
- Mandating more and complete lead service line replacements.
- For the first time, requiring testing in schools and child care facilities.
- Requiring water systems to identify and make public the locations of lead service lines.

As the ACSA and RWSA develop our compliance plans for the new LCR, we want you to know we have been proactive about lead and copper in several ways. We've started service line material identification and, to date, we have not found any lead service lines in our systems. Meter setters with a lead content were removed years ago. As mentioned earlier, the RWSA recently conducted detailed corrosion-control studies of all treatment plants and implemented slight changes in the chemical used to inhibit corrosion. These changes have been found to be extremely effective.

**Above all else, the ACSA and RWSA have decades of excellent lead and copper test results. Since 2016, just under 97% of all samples (311 out of 322) have had undetectable levels of lead.**



## Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and internal plumbing. RWSA and the ACSA are responsible for providing high-quality drinking water; it is non-corrosive, has a corrosion inhibitor added to the water to coat the pipes, and is delivered to you in pipes that are free of lead.

However, we cannot control the variety of materials used in the plumbing components of houses and businesses. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before drinking or cooking. If you are concerned about lead in your water you may wish to have your water tested. The periodic lead and copper testing at select, high-risk households took place during the summer of 2021. (See the data chart.)

**A trace amount of lead was found in only one of the 30 samples in 2021. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).**

## Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface waters throughout the U.S. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection characterized by nausea, diarrhea, and abdominal cramps. Cryptosporidium may be spread through means other than drinking water. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at risk of developing a potentially life-threatening illness.

Although filtration removes the pathogen, the most commonly used filtration methods cannot guarantee 100% removal. The RWSA makes every effort to optimize the filtration process at all of the WTPs to ensure the greatest degree of Cryptosporidium removal. Based on the results of recent studies, our water sources have been placed in the lowest risk category for exposure to Cryptosporidium.

## Fluoride

The naturally-occurring fluoride content of our source waters (reservoirs and streams) is quite low. Therefore, fluoride is added to your water at the treatment plants to promote good dental health. Fluoridation of drinking water was first introduced in the U.S. in the 1940s, and the Centers for Disease Control and Prevention named it one of the ten great public health achievements of the 20th century.



## Fluoride (continued)

In 2011, the U.S. Department of Health and Human Services (DHHS), jointly with the U.S. Environmental Protection Agency (EPA), recommended that the level of fluoride added to drinking water be reduced from a range of 0.7-1.2 ppm to 0.7 ppm.

The main reason for this action is that Americans have access to more sources of fluoride than they did decades ago. In addition to the fluoride added to many public water supplies, it is found in toothpastes and mouth rinses, and is routinely applied to children's teeth by dental professionals.

DHHS officially decreased the recommended level of fluoride in drinking water to 0.7 ppm in 2015. The range of fluoride added to your water in 2021 was 0.64-0.82 ppm.

## Potential Health Risks Associated with These Contaminants

Total and Fecal Coliform Bacteria. Coliforms are a large group of bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Fecal coliform bacteria and *E. coli*, in particular, indicate a likely contamination from human or animal wastes. These microorganisms can result in short-term effects such as nausea, headache, cramps and diarrhea, and they pose a special health risk for infants, young children, the aged, and those with severely compromised immune systems.

Turbidity is a measure of the clarity of water. On its own, elevated turbidity has no health effects. However, turbid water can interfere with disinfection and may provide a medium for microbial growth. Elevated turbidity may also indicate the presence of disease-causing organisms, including bacteria, viruses or parasites that can cause such symptoms as nausea, headache, cramps and diarrhea.

Combined Radium, Gross Alpha and Gross Beta. These are naturally-occurring forms of radiation, resulting from certain minerals that are radioactive. When these minerals are eroded into the source water, radiation in the water may result. Some people who drink water containing radium, or alpha or beta emitters, over many years may have an increased risk of getting cancer.

Lead and Copper. The USEPA Lead and Copper Rule mandates a household testing program for these metals, and the values reported in the chart are from samples that were collected from select households. Infants and children who drink water containing lead in excess of the Action Level could experience delays in physical or mental development. Children could show deficits in attention span and learning abilities.



## Potential Health Risks Associated with These Contaminants

Lead and Copper (continued). Adults who drink this water over many years could possibly develop kidney problems or high blood pressure. See the box for additional information on lead. Copper is an essential nutrient, but some who drink water containing copper in excess of the Action Level could experience gastrointestinal distress in a relatively short period of time. Some who drink this water over many years could develop kidney or liver damage. Individuals with Wilson's disease should consult their doctor.

Barium is a metal that is naturally-occurring in rock and the soil. Some people who drink water containing barium in excess of the MCL over many years may experience an increase in their blood pressure.

Fluoride is an element added at the water treatment plants to promote strong teeth. Some people who drink water containing fluoride in excess of the MCL over many years could develop bone disease, with pain and tenderness of the bones. Children who drink water containing fluoride in excess of the MCL may develop mottled teeth. See the box for additional information on fluoride.

Nitrate is a form of nitrogen found primarily in fertilizers, sewage, and runoff from natural deposits. Infants below the age of six months who drink water containing nitrate in excess of the MCL could develop "blue baby syndrome" in which there is a bluish coloration of the skin and shortness of breath. The infant can become seriously ill and, if untreated, may die.

Chlorine is added at the treatment plant to inactivate disease-causing microbes. Some people who use water containing chlorine in excess of the MRDL could experience irritation of the eyes, nose and skin. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Trihalomethanes and Haloacetic Acids are compounds formed by the interaction of chlorine with naturally-occurring organic matter, and they are sometimes referred to as disinfection by-products. Chlorine is added at the treatment plant to inactivate disease-causing microbes, and organic matter is naturally present from leaves and decaying plants in the reservoirs and streams. Some people who drink water containing these compounds in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer.



## 2021 Water Quality Test Results

Primary Standards - Potential Health Risk	MCLG	MCL	ACSA Water Results	# Samples > AL	Range of Detections	Violation?	Typical Source of Contaminant
<b>MICROBIOLOGICAL ORGANISMS; RELATED MEASUREMENTS</b>							
Total Coliform Bacteria (1)	0	Presence in 5% of samples per month	2 per month (Apr.) (2)	N/A	0-2 per month	No (2)	Naturally present in the environment
Fecal Coliform Bacteria (1)	0	See footnote (3)	0 (4)	N/A	0 per month	No (4)	Human and animal fecal waste
Turbidity (max. single value)	N/A	1 (5)	0.17 NTU	N/A	N/A	No	Soil runoff
Turbidity (% of monthly samples below 0.3 NTU)	N/A	At least 95% (5)	100%	N/A	100%	No	Soil runoff
<b>RADIOACTIVE COMPOUNDS</b>							
Combined Radium (6)	0 pCi/l	5 pCi/l	0.7 pCi/l	N/A	<0.5-0.7 pCi/l	No	Erosion of natural deposits
Gross Alpha (6)	0 pCi/l	15 pCi/l	<0.36 pCi/l	N/A	<0.3-0.36 pCi/l	No	Decay of natural deposits
Gross Beta (6,7)	0 pCi/l	50 pCi/l	1.7 pCi/l	N/A	1.1-1.7 pCi/l	No	Erosion of natural deposits
<b>INORGANIC COMPOUNDS</b>							
Lead (8)	0 ppb	15 ppb (AL)	<2.00 ppb (9)	0	<2.00-3.02 ppb	No	Corrosion of household plumbing
Copper (8)	1.3 ppm	1.3 ppm (AL)	0.044 ppm (9)	0	<0.020-0.118	No	Corrosion of household plumbing; erosion of natural deposits
Barium	2 ppm	2 ppm	0.020 ppm	N/A	<0.010-0.020	No	Erosion of natural deposits; drilling waste discharges
Fluoride	4 ppm	4 ppm	0.78 ppm	N/A	0.64-0.82 ppm	No	Water additive that promotes strong teeth
Nitrates	10 ppm	10 ppm	0.36 ppm	N/A	<0.05-0.36 ppm	No	Fertilizer runoff
<b>DISINFECTION &amp; DISINFECTION BYPRODUCT CONTAMINANTS</b>							
Free Residual Chlorine	MRDL=4 ppm	MRDL=4 ppm	1.30 ppm (10)	N/A	0.35-2.19 ppm	No	Water additive to control microbes (disinfectant)
Total Trihalomethanes (TTHMs)	0	80 ppb	38 ppb (11)	N/A	8.7-45 ppb	No	Disinfection byproduct
Haloacetic Acids (HAAs)	0	60 ppb	18 ppb (11)	N/A	5.4-23 ppb	No	Disinfection byproduct

### What if I am immuno-compromised?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those with cancer undergoing chemotherapy; people who have undergone organ transplants; persons with HIV/AIDS or other immune system disorders; and some elderly and infants can be



## What if I am immuno-compromised (continued)

particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA and CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from EPA's Safe Drinking Water Hotline (800-426-4791) or by visiting their website - [www.epa.gov/safewater](http://www.epa.gov/safewater).

## 2021 Water Quality Test Results (continued)

Secondary Standards/Aesthetic Factors	MCLG	MCL	ACSA Water Results	# Samples > AL	Range of Detections	Violation?	Typical Source of Contaminant
Chloride	N/A	250 ppm	9.0-16.3 ppm	N/A	9.0-16.3 ppm	No	Runoff/leaching of natural deposits
Iron	N/A	0.3 ppm	<0.05 ppm	N/A	N/A	No	Runoff/leaching of natural deposits
Manganese	N/A	0.05 ppm	<0.01 ppm	N/A	N/A	No	Runoff/leaching of natural deposits
pH	N/A	6.5-8.5 S.U.	7.5-7.7 (mth. avg.)	N/A	7.5-7.7 (mth. avg.)	No	Runoff/leaching of natural deposits
Sulfate	N/A	250 ppm	<5.0-21.7 ppm	N/A	<5.0-21.7 ppm	No	Runoff/leaching of natural deposits
Total Dissolved Solids	N/A	500 ppm	54-93 ppm	N/A	54-93 ppm	No	Runoff/leaching of natural deposits
<b>OTHER PARAMETERS OF INTEREST</b>							
Alkalinity	N/A	N/A	20-52 ppm (mth. avg.)	N/A	20-52 ppm	N/A	Runoff/leaching of limestone minerals
Conductivity	N/A	N/A	108-157 micromhos/cm	N/A	108-157 micromhos/cm	N/A	Runoff/leaching of natural deposits
Hardness	N/A	N/A	18-40 ppm	N/A	18-40 ppm	N/A	Runoff/leaching of limestone minerals
Sodium	N/A	N/A	7.82-25.0 ppm	N/A	7.82-25.0 ppm	N/A	Runoff/leaching of natural deposits

## What Do All the Numbers Mean?

First, they show your drinking water met or exceeded all regulatory requirements during 2021. We are fortunate to have reliable sources for your drinking water needs, and well-operated treatment facilities. The information provides you with details on each potentially harmful contaminant or compound detected in your drinking water.



## Footnotes

- (1) Unit of measurement for total and fecal coliform bacteria is the presence or absence of bacteria in a 100 ml sample.
- (2) Of the 960 routine samples collected in 2021, two (2) samples indicated the presence of total coliform bacteria. Neither of these samples indicated the presence of fecal coliform bacteria.
- (3) Fecal coliform MCL: A routine sample and a repeat sample are total coliform positive, and at least one is also fecal coliform positive.
- (4) No repeat sample indicated a positive result for fecal coliform bacteria or total coliform bacteria.
- (5) The MCL for turbidity is for no single measurement to exceed 1 NTU, and for 95% of all measurements to be below 0.3 NTU.
- (6) Last sampled in 2017. To be sampled again in 2023.
- (7) The EPA considers 50 pCi/l to be the level of concern for beta particles.
- (8) Sampled in July 2021 from select, high-risk residences. To be sampled again in 2022.
- (9) The value reported is the 90th percentile of all data (30 samples) collected.
- (10) The value reported is the highest running annual average. Range is all individual samples.
- (11) TTHM and HAA results are averaged over four quarters at each sampling location to determine compliance with the MCL. Range of detections is from 2021, but "Results" includes late 2020 and 2021.

## Definitions

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are as close to the MCLGs as possible using the best available treatment technology.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. The addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to public health.

**ppb:** Parts per billion or micrograms per liter (ug/l). One part substance per billion parts of a solution.

**ppm:** Parts per million or milligrams per liter (mg/l). One part substance per million parts of a solution.

**pCi/l:** Picocuries per liter. This is a measure of radioactivity.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Action Level (AL):** The concentration of a contaminant, which, if exceeded, trigger treatment of other actions by the water provider. This term is typically limited to discussions of lead and copper concentrations.

**N/A:** Not applicable. **≤:** Less than.





## **2022 ACSA Drinking Water Quality Reports Available Online May 10**

The ACSA's Annual Drinking Water Reports detail how our dedicated staff delivered water of the highest quality during 2021; it met or exceeded all regulatory requirements.

The reports can be found on our website by visiting  
[www.serviceauthority.org/waterqualitysupply/water-quality](http://www.serviceauthority.org/waterqualitysupply/water-quality).

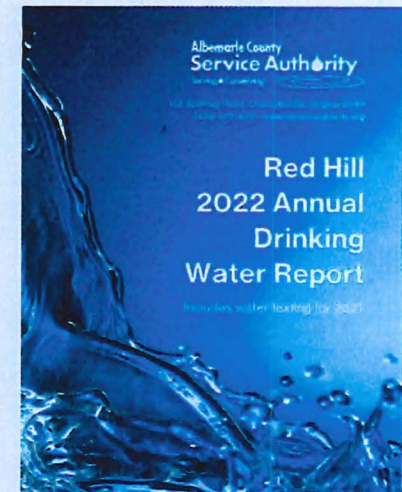
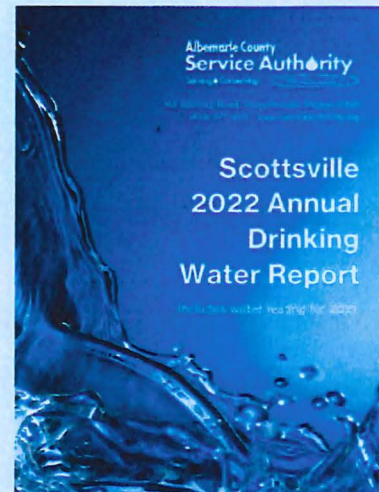
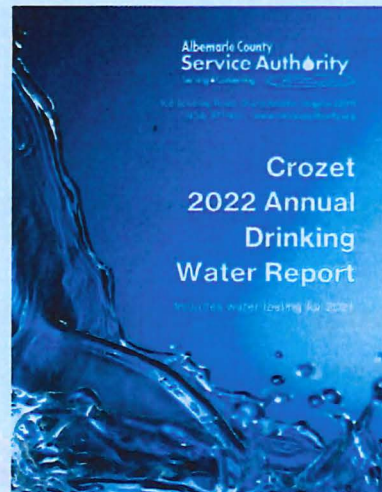
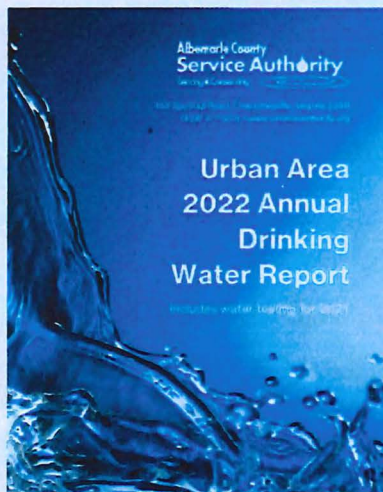
You can also read about how we're prepared to meet new and future water quality regulations.

If you wish to receive a paper copy of one or more of the reports, please contact

Tim Brown at [tbrown@serviceauthority.org](mailto:tbrown@serviceauthority.org) or 434-977-4511, ext. 119.




## 2022 ACSA Drinking Water Quality Reports Available Online May 10



The reports can be found on the ACSA's website by visiting [www.serviceauthority.org/waterqualitysupply/water-quality](http://www.serviceauthority.org/waterqualitysupply/water-quality).

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Upper Morey Creek Sewer Line Transfer to ACSA	<b>AGENDA DATE:</b> June 16, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Gary O'Connell, Executive Director 	<b>ACTION:</b> Informational  <b>ATTACHMENTS:</b> Yes

**BACKGROUND:** In 2019-2020, the Rivanna Water & Sewer Authority (RWSA) rehabilitated a significant portion of the Morey Creek Interceptor (MRI), known as the Upper Morey Creek Sewer Interceptor. This portion originates just north of the Birdwood Golf Course and includes approximately 5,800 linear feet (LF) of 12" Vitrified Clay Piping and 23 manholes (see attached map). Upper MRI carries an average of approximately 60,000 gallons per day of dry weather sanitary sewage, mostly from residential and small non-residential sewer connections. The nature and volume of the discharges into this sewer aligns better with sewers owned and operated by the Albemarle County Service Authority (ACSA), thus both staffs have recommended that ownership of the Upper MRI be transferred to ACSA.

**DISCUSSION:** The Morey Creek Interceptor (MRI) was constructed in 1975 and carries sanitary sewage from the Western portion of the Urban Area of Albemarle County southward, towards the Moores Creek Interceptor and ultimately the Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF). The uppermost reach of MRI is known as the Upper MRI and is a 12" sanitary sewer that originates just north of the Birdwood Golf Course. From the first manhole (MH-66) to the manhole on MRI where RWSA's Crozet Interceptor (CZI) ties in (MH-45), the sewer is characterized by small residential and non-residential direct connections and acts as a low-flow collector sewer. At MRI-MH-45, CZI ties into MRI, and the downstream portions of MRI act as a typical RWSA Interceptor, with high flows and relatively few direct connections. The number of residential connections upstream of MRI-MH-45 is increasing each year, due to existing septic systems failing at homes in the Bellair and Liberty Hills neighborhoods. The ACSA intends, and has a CIP project, to extend sanitary sewer service to these neighborhoods, and the Upper MRI will ultimately become a part of this new sewer collector system.

In 2019, Closed-Circuit Television (CCTV) footage revealed that the 12" Upper MRI was in need of significant amounts of sewer and manhole rehabilitation, to include cured in place piping (CIPP), manhole coatings, and point repairs. These

**ALBEMARLE COUNTY SERVICE AUTHORITY****AGENDA ITEM EXECUTIVE SUMMARY**

efforts were completed by RWSA in May 2021. With Upper MRI rehabilitated to the confluence of MRI & CZI, and the low flow characteristics of Upper MRI, both staffs recommend the Upper MRI from MRI-MH-66 to MRI-MH-45 be transferred to ACSA.

**BOARD ACTION REQUESTED:** Authorize the Executive Director to execute a deed with the Rivanna Water & Sewer Authority (RWSA) that will transfer ownership of the Morey Creek Interceptor upstream of MRI-MH-45 from RWSA to the ACSA. RWSA will retain ownership of MH-45 and all of MRI downstream of this manhole.

**ATTACHMENTS:** Upper Morey Creek Sewer Interceptor Line Ownership – ACSA and RWSA







**MOTION:**

**MEETING DATE:** June 16, 2022

**SECOND:**

### **RESOLUTION**

BE IT RESOLVED by the Board of Directors of the Albemarle County Service Authority that the Board needs to enter into Executive Session to consider the following matter:

1. Pursuant to Va. Code §2.2-3711 A (1) to discuss a personnel matter concerning the Executive Director's Annual Performance Review.

**VOTE:**

**AYES:**

**NAYS:**

(For each nay vote, the substance of the departure from the requirements of the Act should be described).

**ABSENT DURING VOTE:**

**ABSENT DURING EXECUTIVE MEETING:**

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Gary B. O'Connell, Secretary-Treasurer

**MOTION:**

**MEETING DATE:** June 16, 2022

**SECOND:**

**CERTIFICATION OF EXECUTIVE MEETING**

**WHEREAS**, the Board of Directors of the Albemarle County Service Authority has convened an executive meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of The Virginia Freedom of Information Act; and

**WHEREAS**, §2.2-3711 A (1) of the Code of Virginia requires a certification by this Board that such executive meeting was conducted in conformity with Virginia law;

**NOW, THEREFORE, BE IT RESOLVED** that the Board hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the executive meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the executive meeting were heard, discussed or considered by the Board.

**VOTE:**

**AYES:**

**NAYS:**

(For each nay vote, the substance of the departure from the requirements of the Act should be described).

**ABSENT DURING VOTE:**

**ABSENT DURING EXECUTIVE MEETING:**

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Gary B. O'Connell, Secretary-Treasurer